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VOLUME III.

HANDBOOKS ~~S~~ PART III.

FISHES OF FANCY: THEIR PLACE IN MYTH, FABLE, FAIRY-TALE,
AND FOLK-LORE.

ANGLING CLUBS AND PRESERVATION SOCIETIES OF LONDON
AND THE PROVINCES.

SEA FABLES EXPLAINED.

SEA MONSTERS UNMASKED.

PRACTICAL LESSONS IN THE GENTLE CRAFT.

LITERATURE ~~OF~~ OF SEA AND RIVER FISHING.

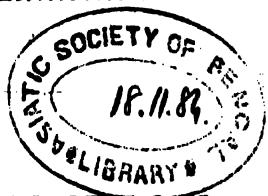
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HANDBOOKS—PART III.

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FISHES OF FANCY:
THEIR PLACE IN MYTH, FABLE, FAIRY-TALE
AND FOLK-LORE;

WITH
NOTICES OF THE FISHES OF LEGENDARY ART,
ASTRONOMY AND HERALDRY.

BY
PHIL ROBINSON,

**AUTHOR OF 'IN MY INDIAN GARDEN,' 'UNDER THE PUNKAH,' 'NOAH'S
ARK—AN ESSAY IN UNNATURAL HISTORY,' 'SINNERS AND
SAINTS,' 'THE POET'S BIRDS,' ETC., ETC.**

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“Where hast thou floated, in what seas^d pursued
Thy pastime?”—*Cowper*.

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“So many fishes of so many features,
That in the waters we may see all creatures,
Even all that on the earth are to be found,
As if the world were in deep waters drown’d.”
Walton.

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“‘And is the sea’ (quoth Coridon) ‘so fearfull?’
‘Fearful much more’ (quoth he) ‘than heart can fear;
Thousand wyld beasts with deep mouths gaping direfull,
Therein still wait, poore passengers to teare.’”
Spenser.

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“Ye monsters of the bubbling deep
Your Maker’s name upraise;
Up from the sands, ye codlings pcep,
And wag your tails always.”
New England Hymn.

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“Anon ten thousand shapes,
Like spectres trooping to the wizard’s call,
Fly swift before him; from the womb of earth,
From ocean’s bed, they come.”—*Akenside*.

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“ And there were crystal pools, peopled with fish,
 Argént and gold ; and some of Tyrian skin,
 Some crimson-barred. And ever at a wish
 They rose obsequious, till the wave grew thin
 As glass upon their backs, and then dived in,
 Quenching their ardent scales in watery gloom,
 Whilst others with fresh hues rowed forth to win
 My changeable regard.”—*Hood.*

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“ There rolling monsters, arm'd in scaly pride,
 Flounce in the billows, and dash round the tide.
 There huge Leviathan unwieldy moves,
 And through the waves, a living island, roves ;
 In dreadful pastime terribly he sports,
 And the vast ocean scarce his weight supports.
 Where'er he turns, the hoary deeps divide ;
 He breathes a tempest and he spouts a tide.”

Groome.

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“ And all the griesly monsters of the sea
 Stood gaping at their gate, and wondred them to see.”

Spenser.

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PREFATORY NOTE.

THE range of this Handbook is so extensive, that it is obviously impossible to accomplish more than a very superficial review of its subjects in the compass of a hundred pages. For it touches on Primitive Zoolatry (glancing at Totemism and Sacred Fish-myths), Zoological Mythology, Legendary Art, the Folk-tale of all nations, Fables, the Sciences of Heraldry and Astronomy, Poetry from Chaucer to Wordsworth—and Modern Folk-lore. Moreover, following the liberal “fish-idea” of the Exhibition, it has been necessary to wander from the cetaceans on the one hand through fishes proper to the crustacea and molluscs on the other. So that not only in Unnatural, but in Natural History also, the range of this Handbook is of necessity very wide. I have contented myself, therefore, with bringing a few leading thoughts into prominence—antiquity of the Religious Fish-myth, its dignity, its importance in Totemism, the benign aspect of Fish in the Folk-tale, the persistence of ancient fancies in modern superstitions.

Such subjects are not, I take it, to be treated with a uniform gravity; at the same time their intrinsic importance should never be lost sight of.

It is in this humour that I have written, and fully conscious that the magnitude of the matters of which I have to treat—Animism in some of its widest and latest aspects—makes it impossible, in so limited a space, to say all that I should, would, or could.

I would, therefore, anticipate my critics, by saying, that the value of this Handbook will probably be found in what it omits rather than in what it contains. It has in it the suggestions for a very desirable and entertaining volume.

PHIL ROBINSON.

FISHES OF FANCY.

CHAPTER I.

PRIMITIVE FISH-BELIEFS.

The loss of Solomon's work on Fish a possible misfortune—Reticence in Holy Writ as to Fish—Even St. Peter does not identify his Fishes—The First Fishers—Dignities of Fishes and their Antiquity—How they chose Leviathan king, and how the Monarchy is now a Republic—Individual Fishes of Honour and of Disrepute—That the Sea is a duplicate of the Earth, an error; but resemblances not to be despised—That Birds were once Fish—Romance of Fact—Are not the Popular Ideas about Fishes prejudiced by error?—What Fishes might think of us.

THAT the world sustained a great loss in the destruction of Solomon's work on Fishes may be accepted as beyond dispute, for let the scientific attainments of the sumptuous builder have been what they might, there can be no doubt of it, Solomon, who was of an artistic kind, would have preserved to posterity a vast quantity of old-world nonsense, possibly even of antediluvian facts, which is now hopelessly lost to us; and except Solomon, no other personage of Holy Writ has expatiated on the subject of fishes. We have no scriptural recognition of any great fisher "before the Lord." Indeed, the untranslated Bible is singularly reticent on the subject, for it does not specify a single fish. Tobit's fish and Jonah's fish, the fishes of the Psalms and of the New Testament, are spoken of only generically, and even when the Lawgiver is enumerating the things which

the Hebrews might and might not eat, he is careful to distinguish by their names the creatures in fur and feathers, but the fish are merely divided into "those with scales and fins," and "those without." Still more remarkable is it that Peter and his comrades, themselves professional fishermen, should have omitted to identify the actual species with which the Saviour worked His miracles. In fish history, therefore, there is a very considerable gap, and it is not until we go to Pagan Mythology that we find the things of the water identified into species. •

Of fishing itself we have records from the earliest times, for the Vedas, and of course the Bible, speak of the net and line, spear and hook. But the first of fishers of whom any record remains is undoubtedly that primæval god of the ichthyophagous Polynesians who existed in the very beginning, and when first heard of was out a-fishing on the face of the waters. And he fished up dry land with a hook and line—

"His hook he baited with a dragon's tail,
And sat upon a rock, and bobb'd for whale."

Coeval with this deity were those mighty anglers Thor and Odin, who fished (sometimes for the sea-serpent itself) in the Scandinavian seas. Judging, however, from the fact that in the East the caste is still one of very low degree, and that in the most primitive communities, fish-catching is still the work of women—and so distinguished from other kinds of sport, which are always the first and proudest privilege of savage manhood—it is not likely that the private angler was an individual of any importance. Coming down, however, to the classical period, we find the pastime established in popularity and fashion. Kings and their courts amused themselves with the spear and net. Agrippa

was so fond of fishing that he called himself Neptune. The Emperors of Rome practised it with every circumstance of characteristic luxury: their nets were of purple silk, and the ropes of gilt twine. It is true, that "from time immemorial" the Emperors of China had gone a-fishing, and not less a fact that Gulliver found folk fishing both in Brobdingnag and in Liliput. "But the people of the former country did not care for sea-fish; they were all the ordinary size. Sometimes, though, they caught a whale, and I have known them so large that a man could hardly carry one upon his shoulders; and sometimes, for curiosity, they are brought in hampers to Lorbrulgrud." What they caught in Liliput he does not tell us.

Izaak Walton—"that quaint old coxcomb"—I know, amuses himself by surmising that Seth, the son of Adam, taught his son to cast a fly, and that he engraved the mystery of the craft upon those pillars of which Masons and Mormons know so much. But the world in general will hardly be content to believe that the patriarch really occupied so much valuable surface with the details of fishing, and will prefer to accept the imperial masters of Rome as the first of gentlemen anglers, and the fascinating Cleopatra as the first of the fair sex who made angling a feminine fashion.

Apart from their historical records, the fishes have held a really important place in the world's attention from the beginning of time. This, at any rate, is beyond doubt, that the oldest folk-lore extant, the Buddhist, abounds in morals and significances drawn from the finny race, and that one of the oldest of worships, the Phallic, finds under the symbol of these creatures a conspicuous expression. Wherever we go in the East, we find them in Art and Literature perpetually recurrent. It was in the First Age of the World

(so spake the Buddha when reproving the luxurious Monk of Jetavana) that the fishes chose Leviathan for their king. Aqueous society, therefore, was an established monarchy at the earliest possible date. What manner of thing "Leviathan" was in those unevoluted days—the period called (until the days of Lyell) the Epoch of Diluvium and Catastrophe, the age of unlimited mud—it would be almost profane for us, in these puny days of whales, without spirit enough in us to firk up even a sea-serpent, to attempt to imagine ; and for myself I am content to believe with the Talmudists, that it was an indefinable sea-monster, of which the female lay coiled round the earth, till God, fearing her progeny might destroy the new globe, killed it, and that then He salted her flesh and put it away for the banquet which the pious shall enjoy at the Great End. In that day the angel Gabriel will kill the male also, and will make a tent out of his skin for the elect that are bidden to the banquet. It is a hazy old tradition, I confess, but it is the oldest we have, and, as regards Leviathan, quite as satisfactory as any other on the subject.

But the monarchy must have collapsed, for fishes are nowadays distinctly republican, and each arrives at its own particular measure of dignity upon grounds apart from any relation to a central authority. An Arabic legend * tells us of the Lake Biserta, which received twelve different kinds of fish, one for each month of the year, without any intermixture, for when their month elapsed all the fish of the species then in possession used to vacate the lake, and were replaced by another. But this admirable system of methodical tenancy—reminding one of the system in vogue in rest-houses in the East, where a party

* Now for the first time in print, as are most of the others in this Handbook from Arabic sources.

of travellers can only remain twenty-four hours, and on the arrival of the next party has to move on, bag and baggage—does not obtain anywhere else, for fish are now thoroughly American in their confusion of classes and the assertion of their disregard for each other's liberty.

In the general struggle some of them have attained to honours by their force of character. For instance, the salmon—so lordly in its nature as to worthily justify the name of that proud King of Elis who defied Olympus. But he was hurled to the shades by a judiciously-directed thunderbolt, and thus abundantly expiated his arrogant obliquities. So too the shark, that awful Attila of the sea; and the pike also, the dispeopler of the lake, that by its ferocity of countenance and manners usurps the autocracy of the reedy waters, and compels the vigilance not only of the otter that comes to poach, but of the beasts of man that come to drink, and even of man himself; for it has been known to rout the "goose-footed prowler," to bite off a swan's head, to seize the nose of a drinking cow, and, crowning audacity, to bite man. Did not Theodoric the Goth die of fright at seeing a pike's head on his table? He mistook it for the head of a person whom he had that day unjustly put to death.

Other fish, again, have compassed dignity by the passive virtues of their flesh. Did not Domitian order a special session of the Senate to discuss the cooking of a turbot, and "*nihil ad rhombum*"—all Lombard Street to a China orange—pass into a proverb? What man in Rome would not have been a lamprey to be petted by the beautiful wife of Drusus? and what a pitch of dignity they attained to in the households of epicures, those mullet and *muræna* and carp!

But by far the greater number have achieved distinction

by legendary exploits, or by accidents of honour. Thus the dolphin and the tortoise, or the haddock and the John Dory. It was a crab that retrieved the crucifix of St. Xavier from the sea—

“Nor let Xavier’s great wonders pass concealed,
How storms were by the almighty wafer quelled;
How zealous crab the sacred image bore,
And swam a catholic to the distant shore;”

and to a codfish that Scandinavia owed its recovered crown. Was it not a fish that guided the Vedic ark to its resting-place, the hill-peak Naubandha? and from a fish-pond (according to Arabic legend) that Moses was rescued by Pharaoh’s daughter? When the demons had usurped Solomon’s throne, and the monarch was an outcast in his dominions and jeered at as a sort of Perkin Warbeck, a preposterous claimant, a fish found the omnipotent signet-ring, and so enabled the king to reascend his throne. Did they not give their names to a score of cities? Is not fish one of the special foods promised to the faithful in the paradise of the Moslem, with, hard by, that tree from Sinai that yields sauces “for them who eat”—a kind of paradisaical cruets. The heirs of France take their name from a “fish”; and have not fishermen given three kings to Persia and an emperor to Rome?

But just as many have thus adventitiously arrived at celebrity, so many others have accidentally fallen into disrepute. The mackerel can hardly be a proud fish, recollecting its traditional imputations, nor lobsters go haughtily. The character of this crustacean in legend is perhaps worth a passing remark, for it is curious that while the crab ever holds a place of honour, the lobster should be always disreputable. Very old engravings show us a

fool astride a lobster; and the significance of that medal of the Pretender, in which the youthful aspirant is shown in the arms of a Jesuit who rides a lobster, conveys nothing to the credit * either of the friar or the fish. Mercury in his ignobler aspect rides a cray-fish. The porpoise is popular in the same homely way that the pig is; but the cel has the worst of characters.

It was a common myth once that the sea held a duplicate of every animal on the earth, and antiquity therefore was familiar with many marine equivalents for their land-beasts, even though they could find no better resemblances for the corresponding terrestrial beasts than a lobster for the "lion," a crab for the "bear," a skate for the "ox," a dog-fish for the "dog," and an cel for the "wolf." The names were probably given at first simply to indicate a single point of fancied resemblance, but eventually some imaginative theorist, seeing so many correspondences recognised, hit upon the idea of extending the identities throughout creation. The attempt, however, was a complete failure, and the further enquiry is made, the wider become the differences between the inhabitants of the water and the earth. Sailors and fishermen still retain many of the old names, and popular usage has familiarised us more or less with the sea-horse—the quaint little creature, more like a knight on a chess-board than a horse—sea-lion, sea-bear, sea-cat, sea-eagle, sea-bat, sea-hedgehog, sea-leopard, sea-mouse, sea-scorpion, sea-snipe, sca-

* "The imputation upon the legitimacy of the Pretender, conveyed in the above, was occasioned in a great degree and almost justified by the pilgrimages and superstitious foolishness of his grandmother, increased by his mother's choosing St. Francis Xavier as one of her ecclesiastical patrons, and with her family attributing the birth of the Prince to his miraculous interference."—*Notes and Queries*.

swallow, sea-parrot, and so forth; while heralds are responsible for the perpetuation of many amphibious hybrids. But this tendency to see in the water a reflection of everything on land, is only an instance of human self-consciousness, for if we were to be just to our seniors in creation, and more modest, we should call ourselves land-manatees, our elephants land-whales, and our tigers land-sharks. As Sir Thos. Browne says—"If we concede that the animals of one element might bear the names of those in the other, the watery productions should have the pre-nomination."

Yet at the bottom of the sea are green fields—such as Israel walked over when crossing the smitten flood—in which the small fish take refuge from the greater, just as the field-mice and birds and insects hide in our own grass. The Water-baby found at the sea-bottom both meadows and woods; and Strabo tells us of the flocks of rich fat tunnies that feed on the acorns of submarine oaks. And who would doubt their existence who has read how the prince rides out into mid-ocean to find the casket among the roots of the tree? Once upon a time, too, if the poet is to be believed, our birds were all creatures of the sea. Accident or high spirits took them out of the water into the moist herbage of the banks, whence they could not escape, but which was just wet enough to support life. Their progeny thrived there, but their fins, shrivelling, split up, and the scales, crackling, fell off, and by-and-by a woolly growth took their place and eventually became feathers. The under-fins, with which they used to scrape their way along the sea-floor, became real legs, and thus the bird grew into existence. This un-Darwinian evolution was science a few centuries ago, just as it is science now to understand that the whale once had legs, and roamed

our terrestrial forests—but what a thought! Imagine, in the gloom of a forest, coming upon a whale on legs!

Indeed, it is hardly necessary to go to fable for wonders, for the actual natural world of fishes is a very wilderness of marvels. They come out of the water and migrate in companies across meadows; they wander along river-banks, hunting for terrestrial insects, unfairly trespassing on the grounds of the lizard and land-bird; they climb up trees; are met with travelling along hot and dusty gravel roads under the midday sun;* have been seen thrown up alive from volcanoes in water that was only two degrees below boiling point.† So the wonders of fish-land, the real world of fishes, is as startling and as marvellous as the fictions of mythology itself, and we need go to no Islands of the Pescadores, nor cruise on the bewitched shores of Calypso, to meet with abundant matter for astonishment.

In character, they range through every variety of temperament, from the gentle carp, that in Java and elsewhere are tamed into the playfulness and familiarity of dormice or caged birds, or the Adonis, “darling of the sea,” to the dog-fish, that are cruel and fierce beyond all mammalian comparison. It is true that the Zulus to this day cut flesh out of a living beast, and that other savages do the same; and in a legend of New Zealand we read how a man used to take occasional snacks out of a pet whale. But what episode is there in all human knowledge more terrible than the manner of the death of those whales which the dog-fish follow for days, and days, and days, living upon them as they go? Was ever a death more awful, or cruelty more dreadful? Who, again, has not applauded Trinculo’s excellent phrase of an “ancient and fish-like smell,” or ever thought of the odour of fish as

* Tennant’s ‘Ceylon,’

† Humboldt.

agreeable? Yet to "smell daintily as a flower or a fish" has been accepted by our forefathers as an allowable simile. One angler says the smelt has a fragrance of lavender; another that it savours of cucumber; another that the grayling has the aroma of thyme. St. Ambrose called it the "sweet flower of fishes." The cuttlefish was supposed with "its sweet odour" to attract fish to it;* and the whale to obtain its food by opening its mouth, whence issued "so agreeable a scent" that the creatures of the deep gathered together in its jaws to enjoy the fragrant atmosphere. As a general rule, too, the smell of fish cooking is considered rather worse than that of fish raw: yet, says an Athenian enthusiast, "the odour of a cooking conger is so divine that it would make a dead man sniff."

Fish, again, are charged with being voiceless, but how then about the gurnard that pipes, the other that snorts, the diodon that grunts, and the others that drum and whistle and play on Jews' harps? The legend that they were caught in Egypt by singing to them† is not without its plausibility. "Fishes, though little, have very long ears," is an old Chinese proverb; and to this day, on the Danube, men hang little bells to their nets to attract the fish. In Japan the tame fish are summoned to dinner by

* "And verily all living creatures in the sea love the smell of them exceedingly well, which is the cause that fishers besmeare and anoint their nets with them, to draw and allure fishes thither."—*Historic Devices and Badges*.

† If we may believe Ælian, that most unsophisticated fish, the Thrissa of the Lake Mareotis, "was caught by singing to it, and by the sound of clappers made of shells;" and so musically inclined was this species, and so sharp in hearing sounds even out of its own element, that, dancing up, it leapt into the net spread for the purpose, giving great and abundant sport.—*Wilkinson's Egypt*.

melodious gongs. In India I have seen them called up out of the muddy depths of the river at Dholpore by the ringing of a hand-bell; and from the abbey in Belgium where the tame carp answer at once to the whistle of the monks who feed them, right^o away to Otaheite where the chiefs have pet eels which they whistle to the surface, the same belief in the sympathy of fish with musical sounds will on enquiry be found prevailing. "Dull as a mullet" was a Roman proverb, yet the very men who quoted it prided themselves on the docility, sensitiveness to sound, and personal attachments of their favourite mullets. This fish too, as it happens, was consecrated to Diana the huntress, as it was supposed to hunt the sea-hare, and if any one of the Roman divinities was averse to dulness, it was surely the high-spirited Diana.

I am inclined, therefore, to think that the finned folk have been somewhat calumniated. A grudge, it is possible, has been borne against the fish, under the idea that they escaped the Deluge. Thus Whiston, in his philosophical Romance of the Deluge, surmises that the fish living in a cool element were more correct in their lives than the beasts and birds of the sun-lit land, and were therefore spared from the destruction of the primitive world. But it is extremely improbable that the fish did really escape the ruin of the Deluge. If so, it must have been some of the deep-sea forms only, so that envious depreciation of the marine world on this account would seem to be gratuitous. Yet the very word fish itself has come, by some obliquity of reasoning, to signify an object of doubtful character or absurd appearance, and one-half the creatures of the world are treated as a joke by the other half. Beasts are regarded with deference, birds with admiration, but fish are laughed at as absurdities.

Even men of science say that fish life is "silent, monotonous, and joyless," though science itself contradicts them, as I have already shown; and seriously—if it is permissible to be serious over a whimsical theory—if the fish were to have things their own way for a while, would they not with as much reason (if they argued with as little sympathy) condemn terrestrial existence as flat and dull? They would pretend that our continents were accidents of nature; and as for our islands, that they were merely warts and wens. The interruptions of rock and sand, which now prevent their swimming everywhere, would be pronounced ridiculous—good sea all run to land. Some scientific fish would get up and point out what circumscribed lives the things that went on legs had to lead. There is neither height above nor depth beneath in which they can disport; and as for variety of landscape, the land-folk could make but a poor show as compared with the water-world. The limits within which variation of life-forms are restricted on the earth would afford the marine critic an excellent point against us, and he could hit us very hard indeed when he came to ask us if we had any animated vegetables. If, again, the fish were to hold an Exhibition,* they would divide their sections according to water-spaces and rivers, and not, as man does, according to the geography of dry land; while their exhibits would possess such a thrilling interest for humanity as nothing could surpass, except that apocalyptic solution of all the world's mysteries at the Last Day—when the sea shall give up its dead.

* See Appendix to Handbook.

CHAPTER II.

FISHES IN ZOOLOGICAL MYTHOLOGY.

What Pantagruel saw in Lantern-land—The Greek Naturalists—The dignity of the Fish Myth, and of Zoological Mythology in general—Fish in the Solar Myth—Fish-version of Reineke Fuchs—Vishnu's Fish-Avatar—The Phallical Fish—The Philanthropic Dolphin, a Hellenic creation—The Cosmopolitan Turtle Myth—Purely fanciful Fishes—The Stay-ship and others—Sea Monsters, their persistence in popular belief—Lawrens Andrewe, "hys Fisshes."

WHEN Pantagruel was on his travels, he came, he tells us, "into the country of Tapestry, and saw the Mediterranean Sea open to the right and left down to the very bottom: just as the Red Sea very fairly left its bed at the Arabian gulf, to make a lane for the Jews, when they left Egypt. There I found Triton winding his silver shell instead of a horn, and also Glaucus, Proteus, Nereus, and a thousand other godlings and sea monsters. I also saw an infinite number of fish of all kinds, dancing, flying, vaulting, fighting, eating, breathing, hitting, shoving, spawning, fishing, skirmishing, lying in ambuscade, making truces, cheapening, bargaining, swearing, and sporting. In a blind corner I saw Aristotle holding a lantern, in the posture in which the hermit uses to be drawn near St. Christopher, watching, prying, thinking, and setting everything down in writing."

But if Aristotle had not taken his lantern into the depths of nature, the world for some centuries would have been more ignorant and superstitious than it was, and we

owe to him and to Strabo and Oppian, Ælian and Pliny—those brave old thinkers who, in spite of the shoals of error and the fogs of myth, tried their hardest to keep the ship's head straight for the glimmering beacon-light of Truth—more than we can ever repay. For though the world has grown beyond their facts, and modern science has sifted their knowledge through and through — indeed, I should like to see a fine imposed upon those writers who still persist in larding their lean pages with quotations from them, and imprisonment without the option of a fine upon all who call Pliny “quaint” — yet their works, the Pyramids of old-world thought, abound in significances that can never lose their interest. Zoological mythology is no whimsical study. It reaches out with arms of astronomical power to the beginnings of time, demonstrates the continuity of human intelligence, and proves the evolution of modern creeds.

And since in the beginning there were only Light and Water, the eldest of zoological myths is the Fish-myth. Asia believes the earth to have been saved by a fish and to be supported on a tortoise ; Polynesia, that it was brought up, a fish itself, on a fish-hook, out of the primæval ocean ; America, that a turtle, the sole tenant of the waste of waters, dived for it into the depths of diluvian chaos. Among the most ancient of Syrian divinities is the fish-form ; it is found among the remoter antiquities of Egypt ; primitive Europe saw gods in its fish. Thus gradually, down through the ages, the same symbol was passed on from nation to nation, and the sea, from its mystery, its acknowledged seniority, claimed conspicuous honours in each Pantheon, until, reaching historic times, we find the Greeks—borrowing they knew not whence—perpetuating the original myth, and adding to it as only the subtle

Greek spirit could. And how bright their sea-life was, with its goddesses that sailed about in shells, and gods that rode on dolphins; when mariners saw chariots drawn by sea-horses, hurrying along to scenes of submarine revelry, and heard in the bays the music bubbling up from the sea-kings' palaces! In the beautiful Greek waters were troops of happy people, and it seems no hard fate for Pompilus or for Nais, or any of the other men or women, who for their misdemeanours were condemned to the livery of scales, to have been banished in the Golden Age of fishes from the solid earth to the subaqueous regions where Neptune held his glad court, and Amphitrite her revels. And then came those grand old thinking men, trying, out of a chaos of superstitions to deduce scientific order, and yet preserving for us in their pages all those credulities which now enable us to retrace the paths of human thought, and locate the sources of human beliefs.

In the Solar Myth the fish has been made, like everything else, to play a prominent part: the fair-haired and silvery moon, in the ocean of night, is the little gold-fish and the little silver-fish which announces the rainy season, the autumn, the deluge; out of the cloudy, nocturnal or wintry ocean comes forth the sun, the pearl lost in the sea, which the gold or silver fish brings out. The little gold-fish and the luminous pike, like the moon, expands or contracts, and in this form, as expanding or contracting, the god Vishnu or Hari (which means fair-haired or golden) refers now to the sun, now to the moon, Vishnu having taken the form of the gold-fish. But the commixture of accidental coincidences and incongruous objects which go to make up the myth that Gubernatis sets forth in its most bewildering aspect, has in itself material for volumes, and it is enough here to say, that those who go to any work on the subject

will be surprised to find how large a space the fishes fill in this mythological maze. Indra, who had to hide in the waters ; Adrika, the fish-nymph, who became the mother of Matsyas, the king of the fishes ; the Puranic fishes, symbolical and natural ; the fishes of the Eddas, with the scaly transformations of Andvarri and Loki ; the porpoises that draw the golden chariot ; the Russian whale that swallows the fleet, or the Hindoo one that swallows the monkey-god ; the brown pike that is really the devil and hopes to eat the hero ; the shark that devours the princess ; the phallical pike with the golden fins ; the fish that helps the lazy baker's son ; the eels with all their disreputable significances ; the fishes that laugh ; the dolphins that find Ivan's ring ; the turbulent perch, and the golden carp into which Vishnu turns himself ; all combine with donkeys and blackbirds, bull-moons and fish-moons, rain-clouds, twilights, and thunderbolts, bamboos and hares, luminous and "diabolical," into a mythical cycle of fishes, or, as the master calls it, "their epic exploit," that ought, if anything can, to give the reader a broader sense of the possibilities of fish than he probably ever expected to entertain.

Two of the myths I have referred to will bear more than a passing notice, for the story of the turbulent perch shows a singular affinity in its scheme to "Reynard the Fox," while the fish transformations of Vishnu form an important item of piscine mythology. The jorsh, or little perch, makes itself such a public enemy, that it is called before the royal tribunal, and the bream, and the herring, and the sturgeon all give evidence of the evil conduct of the perch. Judgment of death is accordingly passed upon it, and the crayfish seals the warrant with its claw. But the jorsh rails violently against what it calls the conspiracy

against it, spits at the judge and, jumping out of the dock, escapes. He continues his misdemeanours, and fish after fish is sent to bring him again to the bar. He cleverly gets the better of the messengers, but at last comes and demands a judgment from God. This is permitted, and the jorsh having got into a net, manages to wriggle out again, and is thereupon acquitted, and straightway recommences to annoy all his neighbours worse than ever. This myth, from its resemblance to *Reineke Fuchs*, is obviously an important one in the Thier-epos upon which comparative mythologists work; while the other, that of Vishnu's fish-incarnation, has a dignity of its own, apart from its possible lunar interpretation, as an episode of one of the great religious epics of Asia. The god had become a small fish, and in this form went to Menu, praying for his protection against the larger creatures of the water. The sage, in pity, put the little thing into a water-jar; but in a single night it grew large enough to fill the jar, so Menu put it into a pond. Here the same increase was repeated, and so the fish was taken to the Ganges; but the river soon proved all too restricted for the expanding monster, and it was therefore conveyed to the Sea. Upon this the god made himself known, and warned the sage that in seven days the earth would be overwhelmed by a Flood; but, said the fish, "You must build a ship, and enter it, with seven sages, with a pair of every kind of living thing, and with the seeds of all kinds of plants;" and it promised, when the flood subsided, to come and tell the inmates of the ark. In due time, accordingly, the god, still in the fish shape, appeared, and Menu, making a rope fast to the horn of the fish, was towed to Naubandha, and there the ark rested upon the mountain peak. The Diluvian Legend, therefore, is older than

the inspiration of Moses, and the Biblical narrative of Noah's arrangements had been anticipated by some centuries.

In the later myths—those, for instance, of Greece and Rome—though they, too, reach back by similarities both of design and detail to a distant past, fishes retain their prominence. The distant, mystical ocean was then an object of awful reverence. The nearer seas were governed by powerful but kindly divinities. But both alike were populous with strange fishes, and romantic with legends.

The chief water-myth was that of Aphrodite. Sometimes she springs, a perfect goddess, from the sea itself; at others fish roll on to the shore an egg, from which, a dove brooding on it, the mother of Love is born. Later on, she and her son Eros, to escape the tumult of giant-beleaguered Olympus, hide in the Euphrates in the form of fish; and yet again we find the goddess taking the starry Pisces under her protection. So, too, Athor, the Egyptian Venus, had been a fish; and so, too, Derceto, the Syrian love-nymph. In the Puranic legend a fish receives the love-god, and assists him to espouse Maya.

In the limited space of a handbook—even if it were proper to its object—it would be impossible to enumerate all the fish-myths of the so-called classical period, and I will therefore select only those that seem to me typical of the four classes into which the whole group themselves.

As essentially Greek in brightness of conception is the myth of the philanthropic dolphin. It was pre-eminently the friend of man, and a creature of gladness. Whenever needed it was present, and the stories of its lending itself as the vehicle of gods and nymphs, poets and schoolboys,

are too numerous for recapitulation.* Endowed by tradition with perfectly super-cetaceous virtues, it was accepted by all, mariner and landsman alike, as an amiable ally. The scientific mythologist, as may easily be imagined, has made much of the dolphin, but ingenuity can never get more out of the old myth than that the natural habits of this animal endeared it in the past to all sea-goers, just as they have endeared it to those of the present. Eros, therefore, the blithest of gods, rides on a dolphin—Amphitrite has one for a guardian—and when out a merry-making all the jolly sea-magnates have dolphins tumbling about them. They brought Hesiod's body to shore ; and Ulysses, in gratitude for their saving Telemachus, wore their effigy upon both signet-ring and shield. All fish are benign in fairy tale, but the sum of their united amiabilities hardly equals the services conferred in myth and legend by the dolphin upon the human race. Well does the swift cetacean deserve its place among the stars.

In contradistinction to the dolphin, a purely Hellenic creation, we may place the world-wide, cosmopolitan, turtle. Though a creature to laugh over when we see it creeping stealthily about on tiptoe, as if it were abroad for the purpose of picking pockets, it has a very notable place in myth, for it was almost universally revered. The East believes that the world rests upon a tortoise, which rests upon nothing—and what a grand old testacean it is, this Vedic turtle,

* "They loved music, especially of the 'hydraulic sort' (whatever that sort may have been), and they were easily tamed, and fondly attached to men. Pliny says he should never end all the stories he knows of the obliging behaviour of dolphins, who allowed children to ride on their backs. One of them—as attested by Mæcenas and Fabianus—in the reign of Augustus, carried a boy every morning to school, and when the lad died the dolphin pined away waiting for him on the shore, and at last expired of grief."—*Frances P. Cobbe*.

standing simply on its own dignity, and yet upholding upon its Atlantic carapace all the burdens of the round world and them that dwell therein! Here is a subject for Walt Whitman himself, the self-sufficient, democratic, thewy-and-sinewy, double-sexed, bully-for-you, old tortoise. More power to your shell, sir! We creeping things take off our hats to you, testudinous ancient. And how splendidly the deliberate thing looms out of Hindoo myth as the hereditary foe of the mystical elephant, the Darkness!* The Red Indian to this day says that in the beginning of things there was nothing but a tortoise. It brooded upon space: covered Chaos as with a lid. But after a while it woke up: its solitary existence was irksome to it, and it sank splendidly into the abysmal depths; and lo! when it re-emerged, there was the terrestrial globe upon its back! For something to do, it had fished up our earth from its depths in the protoplasmic liquids, and, rather than be idle, it still keeps on holding it up. But some day it will sink again, and then will come the End—with Ragnarok and Armageddon. In Greek and Roman fancies the tortoise hardly fares so well. It is the form to which a bright nymph, who had jested at the nuptials of Zeus and Heré, was turned into by Mercury; and ridicule falls upon the greatest of the Greeks when a tortoise falls upon his head. Yet they, too,

* “As the éléphant and tortoise both frequent the shores of the same lake, they mutually annoy each other, renewing and maintaining in mythical zoology the strife which exists between the two mythical brothers who fight with each other for the kingdom of the heavens, either in the form of twilights or of equinoxes, or of sun and moon. In the particular struggle between the tortoise and the elephant, terminated by the bird Garuda, who carries them both up into the air in order to devour them, the tortoise and elephant seem, however, especially to personify the two twilights of the day, and the two twilights of the year.”—*Gubernatis*.

knew of the tradition of the world-supporting thing, and did reverence to it. And so, from East to West, from antiquity to to-day, the creature vast, ponderous, inert, has commanded, and commands the homage of men.

As a third type of myth—the fanciful without any latent significance—the remora or sucking-fish, may be cited. In modern times it has been used to illustrate the power of technical trivialities to retard a lawsuit, but antiquity believed it had the power of arresting a ship under full sail by attaching its tail-end to a rock, and its head-end to the keel of a passing vessel—

“The lazy Remora’s inhaling lips,
Hung on the keel, retard the struggling ships.”

In the Natural History of the period we read that “there is a little fish, keeping ordinarie about rockes, named Echeneis. It is thought that if it settle and sticke to the keel of a ship under water, the ship goeth the slower by that means, wherefore it is called the ‘stay-ship.’” Now, Pliny is here cautious enough, and attributes no more to the remora than is actually the property of barnacles when in number. But popular fancy outran fact, and a single remora four inches long was supposed to have held back Antony’s flag-ship in the sea-fight off Actium. Periander also among others declared himself the victim of a similar accident,* and the fiction flourished, thanks

* It is of this incident that Pantagruel makes fun :—

“I saw a remora, a little fish called echineis by the Greeks, and near it a tall ship, that did not get ahead an inch, though she was in the offing with top and top-gallants spread before the wind. I am somewhat inclined to believe, that ’twas the very identical ship in which Periander the tyrant happened to be, when it was stopt by such a little fish in spite of wind and tide.”—*Rabelais*.

chiefly to poets and heralds, till a couple of centuries ago.

“The sucking-fish, with secret chains
Clung to the keel, the swiftest ship detains.”

Of late years, of course, this fancy has been exploded, and instead of being the terrible thing antiquity thought it, the remora is really like the little street boy who gets on to the step of the omnibus when the conductor is not looking, and gets a penny ride for nothing. For the fish attaches itself to the shark and others, merely, it would seem, for the luxury of cheap travelling. Yet knowing this, what are we to say of Mr. Francis Holmwood's astounding discovery at Zanzibar of the “sucking-fish” that is used to catch sharks and crocodiles? Here, at any rate, are his own words, as quoted from the “Exhibition Catalogue,” p. 382 :—

“Young chazo (sucking-fish) being secured, a ring or hoop of iron is let into the tails; they are then kept in a small canoe, the water in which is changed from time to time. They are fed sparingly with pieces of meat and fish, and, if they survive the confinement, soon become used to captivity and to being handled. When they have reached two or three pounds in weight, they are strong enough for use, and are taken out for trial. A line is fastened to the iron hoop, which has become embedded in a firm growth, and on sighting a tortoise or turtle, the chaze is put overboard. It has to be prevented from affixing itself to the canoe, and then it soon makes for the nearest floating object, to which it instantly adheres, and generally allows itself to be drawn with its prey towards the boats. Should it prove too timid to stand this treatment it is discarded as worthless, but if it will hold on, it soon gets bold enough to retain its hold until taken into the boat, when it is at once detached from the prize by being drawn off sideways, and being returned to its tank is at once fed. They are said soon to learn what is required of them, and it is reported that they have been trained to catch sharks. When in Madagascar some years ago, I was told that the “Tarundu,” which the fish is there called, had been trained to catch crocodiles, numbers of which infested the rivers and, as I observed, came down to the neighbourhood of the

fishing villages on the coast, without being affected by the salt water. I hope to forward a specimen of this interesting fish before the close of the Exhibition."

An official footnote to this passage is as follows:—"Up to the time of going to press with the Second Edition, this exhibit had not arrived." And if any confidence is ever to be reposed in modern science as opposed to ancient fancy, let us hope this terrific creature never *will* arrive.

In this class of merely fanciful creatures may be also noticed the *Pompilus*, the sailor's pilot-fish, which was supposed to guide mariners to their destinations, and, having seen them safely into harbour, to go back to look for another job, for Apollo, it is said, changed a fisherman (named *Pompilus*), who had crossed him in his loves, into this fish, and condemned him for all eternity to the task of gratuitous pilotage. The whale, again, was said to be attended by the "*musculus*," a little fish that swam in front of *Behemoth* and warned him off the shoals on which he might have otherwise run aground. This legend reappears in the *Pentameron*, where the whale that has lost its way is told to go and get "the sea-mouse" to pilot it.

As the fourth class of zoological myths, may be grouped the non-existent sea-monsters—

"Most ugly shapes and horrible aspects,
Such as Dame Nature selfe mote feare to see,
Or shamed, that ever should so fowle defects
From her most cunning hand escaped bee ;
All dreadfull pourtraicts of deformitee :
Spring-headed Hydres ; and sea-shouldring whales :
Great whirlpooles, which all fishes make to flee ;
Bright scolopendraes arm'd with silver scales ;
Mighty monoceres with immeasured tayles."

Græco-Roman literature abounds with them, especially such as were hybrids between men and fish, or between

terrestrial and marine animals, and their counterparts are to be found in the folk-lore* of every coast-dwelling people at the present day. I will only notice here the Scylla-myth. Her form is very variously described, but the most familiar acceptance is that which combines the woman, dog, and fish. She gives her name to the dreadful Scyllidæ of science, one of which, the black-mouthed dog-fish, is known to Italian fishermen as the "Bocca d'Inferno"—

"As a shark and dogfish wait •
Under an Atlantic isle
For the negro-ship whose freight
Is the theme of their debate,
Wrinkling their red gills the while."

Yet they eat it, and its even more appalling relative, the Rough Hound—converting these terrors of the sea into a very palatable soup.

With the growth of knowledge and the extension of navigation, the Hellenic monstrosities, themselves the reproduction of still more ancient myths, became gradually discredited; but travellers, and those who lived by catering to the human love of the marvellous, were not behindhand in replacing them with others better suited to contemporary taste and sentiment. Among the more impossible monstrosities that the Middle Ages possessed, the sea-bishop, that had a shark's head, crocodile's claws, and goat's legs, deserved all the eminence it attained; while, not far behind it, came the monk-fish, a tolerably good caricature of a friar, constructed by the showmen of the day out of portions of different fish, but nevertheless as thoroughly believed in by the fair-frequenting public as any pig-faced lady of modern times. This credulity as to "fish-like monsters"

* See Chapter VII.

suggests to Trinculo making a fortune out of Caliban, whom he has mistaken for a sea-creature. "Were I in England now, and had but this fish painted, not a holiday fool there but would give a piece of silver: there would this monster make a man; any strange beast there makes a man." We still have the monk-fish, and though the face might pass for a malignant travesty of the human countenance, there are none of the monkish habiliments which made the old-world monster so attractive to the peep-show public. Indeed, the other name of the monk is the "angel-fish," from the wing-like fins that spread out on either side its demoniacal countenance.

Still later, and coming down to England itself, three centuries ago we find popular ichthyology still largely concerned with non-existent forms, as the following from the work of Lawrens Andrewe, on "the fishes moste knowne," will show:—The eel is of no sex; the Ahuna, when "in peryl of dethe be other fisshes," makes himself as round as a bowl and puts his head in his belly and eats a bit of himself, "rather than the other fisshes sholde ete him hole and all." The balæna, a large merwoman, puts her young in her mouth in rough weather; the cray-fish eats oysters by waiting till the mollusc opens its shells, and then throwing stones in to prevent it shutting up again; the caucius is most difficult to net, because when it sees the meshes settling on it, it sticks its head in the mud and the net slips over the tail; the whale is caught by ships coming round it with bands and amusing it with music till it is speared; the phoca kills its wife when it is tired of her, and gets another; the halata has the power of taking her young out before they are born, and putting them back again; the pike is begotten by the west wind; the musculus is the herald of balæna, but the orchun

is its deadliest enemy, for it pelts it with stones till it kills it ; the serra races with ships, and, if it gets the worst of it, cuts the vessels through with its fins and eats the crew, but is not to be mistaken for the scylla, which is "faced and handed lyke a gentylwoman, but it hath a wyde mouth and ferfull tethe ;" the way to escape the siren when met with, is to throw her an empty barrel or two to play with ; the sturgeon has no mouth, and grows fat on east winds."

Or take again the 'Old English Miscellany,' with its account of the Cetegrande :—"It is the largest of all fish, and looks like an island when afloat. When hungry, it gapes, and out comes a sweet scent, by which numbers of fishes are drawn into its mouth.

"MORAL : The Devil is like the Whale ; he tempts men to follow their sinful lusts, and in return they find ruin."

CHAPTER III.

FISHES IN RELIGION.

Primitive Fish-Divinities—and Greco-Roman—Fish-spirits and Genii—Patron Saints—Sacred fishes—Fish-totems—Fish not eaten because sacred—Fish sacred because not eatable—Fish both sacred and eaten—Putting off the Gods with the Worst fish—Magnifying them with the Best—Religious Fish-legends, Savage, Hindoo, Buddhist, Mahomedan—Fish as Food—Christian Legends—Holy Church perpetuating the Heathen Worship of Venus in Lent—Fish a Christian Symbol.

“WHEN Kareya made all things that have breath, he first made the fishes in the Big Water.” So say the Red Indians, and the legend goes on, curiously enough, to tell how Kareya, in a dog-in-the-manger spirit, kept the fish (they were salmon) to himself, but how man, with the help of the coyote, the prairie-jackal, outwitted the Creator, and got the salmon up stream. Does this point to an artificial system of fish-ladders being known to the primitive savage? At any rate, it authenticates the dignity of fish in the cosmogony of the aboriginal American. But, as older even than this antiquity, we must accept the Polynesian theory of creation. In this the Creator is himself half a fish: That is to say, from the head to the feet, the left side of the body is fish. Coming down, however, to more recent mythologies, we find the senior of the gods of Olympus, the ever-youthful Eros, is a fish, and his so-called “mother ” a fish also. We may note, too, that Jupiter never asserted control over Neptune. On the sea-shore,

near Delphi, sate a priest who delivered his oracles according to the fish that his visitors saw in the waters below. At the present day, if we go to the far North, we find the elements under the control of the Spirits of the Sea, irrespective of the powers of the land.

That the Ocean appealed very strongly to the natural reverence of humanity is thus abundantly in evidence, and we find fish, therefore, occupying a very conspicuous place in the world's beliefs. And apart from the creative powers identified with fish and the divinities that held marine dominion, the creatures of the water could claim the special tutelage of Venus (under all her varying names), of Apollo Opsophagus, and of Artemis, the guardian goddess of fresh waters. In the Dagon form they found gods of their own natural order in many lands, and in Scandinavia knew Odin the All-father as a fish. The number of deities, primitive and classical, that have at one time or another assumed the piscine incarnation is very great, and ranges from Vishnu, the Hindoo Jehovah, to Loki, the Norseman's Mercury.

Of subordinate fish-spirits there is a still larger number ; which are graduated from the New Zealander's Tangaroo, through the Genii of the Lake and the Gulnares of the Sea, to the Arnarkuagsak and Ingnersuaks of the Arctic regions, and thereafter dwindle away into mere maritime goblins, Nöks and Soetrolds, Grim and Fosse-grim, that are only a superior sort of "Davy Jones."

In mediæval times the fish found, too, several Patron Saints. St. Peter of course stands at the head, as a fisherman himself, and actor in the fish-miracles* of Holy Writ,

* It is one of these, the finding of the tribute-money, that gives the haddock,

"A superstitious dainty, Peter's fish,"

its legendary celebrity, the monks averring that it was a haddock

and to this day the Company of the Fishmongers bear the crossed keys of the saint on their arms. That St. Peter's tutelage of fishes and his fief of fisheries was no empty assertion of the Church, may be understood from the fact that the Abbot of St. Peter's, Westminster, claimed all the salmon caught in the Thames, on the ground that the Saint had granted the same to him when he consecrated the Church. After St. Peter came St. Anthony (who preached to the fishes with such effect), St. Christopher, St. Zeno, and St. Andrew of Scotland.

St. Anthony, as is well known, the patron saint of animals of all kinds, utilised his power over fishes in a very meritorious manner, by calling them up from the sea to listen to his preaching, and thus put to shame some stiff-necked heretics of Rimini who refused to listen to his pious counsels. A delightful woodcut in an old chap-book depicts the saint, in the attitude of exhortation, addressing a company of fishes, that poke long goose-like necks out of the water to listen to him, while on the bank—expressing by their gestures their surprise at the miracle and, perhaps, foreshowing also their own approaching conversion—stand in file the stubborn scorers of his teaching.

That St. Christopher was always a patron saint of fishermen is certain, but for what reason seems somewhat obscure. He certainly lived on the river-side, for, so the legend says, he earned his living by carrying people across

(a sea-water fish) that the saint caught in the fresh-water lake of Genesaret. This of course only adds another miracle to the original episode. In a miracle which Jesus worked, and of which, though Holy Writ is silent the Koran preserves the tradition, there descended from Heaven a red table upon which were seven loaves and seven fishes, and the latter tasted at each mouthful of a different Paradisaical delicacy. When all had feasted to their heart's content, Jesus restored the fishes to life.

the water, but nothing is said of his having been an enthusiastic angler. The inference no doubt was that, as no man could be expected to live all his life by the side of a running stream, especially with long intervals of idleness in his days, without angling, the saint eked out his income, and passed his time, by fishing. It was in that notable passage of the river, when he carried the child-Christ across, that he caught the John Dory, a sea-water fish, and left the marks of the pinch which he gave it to be handed down *in memoriam* to the Dory's posterity. This fish, by the way, had a certain classical sanctity as being called Zeus, and Aristotle has a "sacred fish," the Anthias, which, from his description of its habits, has been conjectured to be the John Dory. It was also called Faber, "the blacksmith," and so under the protection of Hephaistos, Mulciber, or Vulcan. Again, the Apah, or king-fish,* is a native of the eastern seas, and it is not a little singular that, by a people so distant and secluded as the Japanese, this fish (originally included in the genus Zeus) should also be regarded as devoted to the Deity, and the only one that is so. The Apah is by them termed Tai, and is esteemed as the peculiar emblem of happiness, because it is sacred to Jebis or Neptune.

St. Zeno was an enthusiastic angler, and therefore worked for, and earned, his position as a patron saint. He was probably an advocate of preserving waters. To this list I have added the patron saint of Scotland, for we read in the adventures of the "Seven Champions of Christendom," how, on the fourth day, by the emperor's appointment, the worthy knight St. Andrew of Scotland obtained the honour to be the chief challenger for the tournament, "and how his tent was framed to represent a ship swimming upon the waves of the sea, environed by dolphins, tritons,

* Yarrell.

and many strangely-contrived mermaids ; and upon the top thereof stood the picture of Neptune the god of the sea." That a Christian knight, already well assured of canonisation, should have fought under such pagan tutelage, is enough to scandalise the Sabbatarian North. But such are the facts.

St. Benedict of Ramsey Mere claims also a fraction of the patronage, as also does St. Benignus, who may be seen at Glastonbury with his fish at his feet. Shell-fish may fairly be said to have a patron saint all to themselves in St. James of Spain, and the crustaceans one in St. Xavier.

Among sacred fish, less well known, are "the Sheikh" and "the Prophet's fish." Says the Arabic legend :—

"A Sicilian cast a hook into the Mediterranean and caught a fish about a span long. Under its right ear were the words, 'There is no God but the God,' and behind it the word 'Muhammad,' and under its left ear 'The Apostle of God.'"

And again :—

"A fish called the Jewish Shaikh has a long white beard and a body as large as a calf, but in the shape of a frog, and hairy like a cow. It is called the Shaikh because it comes out of the sea on Saturday and remains there until sundown on Sunday."

An analogy to this Sabbath-observing fish is to be found in the commentators on the Koran, where we are told that the fish, in order to tempt the Hebrews, used to come up to the camp on Saturday mornings, and provoke the poor wanderers to catch them. And the Hebrews, thinking to avoid sin, went out and dammed up the channel, and then ate the fish on the next day. But as there was little difference in the matter of "working on the Sabbath" between fishing and dam-building, they were very properly punished for this violation of the Day of Rest by being all turned into apes.

Totemism, the system of tribal emblems—"medicine animals" and "clan-animals"—brings into the category of sacred fish another class of great interest, namely those which have been selected by primitive clans as their tutelary genii.* Thus the Pike, Trout, and Sturgeon are among the totems of Red Indian tribes. There are Fish-tribes of both Africans and Australians. Among the Fijians are Eels, Crabs, and Sharks. These individual fishes, thus chosen as the tribal badge, are held sacred by those who have adopted them. They are called the progenitors of the tribe, and are never eaten, nor, if possible, even molested. Among the Wakerewé (of Africa) it is believed that the fish of a neighbouring lake are their special ministers and creatures, and are therefore under their protection. If a fish-hawk so much as touches one, it dies in the very act. With another African race the drum-head fish is taboo, and its teeth, rattled in the fetich-man's-gourd, give forth Delphic utterances.

Going back to the past again, we find fish arriving at sanctity by previous uncleanness, and cities taking their totems, so to speak, from the polluted creatures which in the lapse of time they came to worship. When Isis was collecting the remains of the body of Osiris, she found a portion missing, and discovering that the fish had eaten it, the three species found in the river at that part were forbidden to be eaten by the people of the neighbourhood. The Egyptians in general, says Plutarch, do not abstain from all fish, but some from one sort and some from another. Thus the Oxyrhinchites will not touch any fish taken by a hook, for as they pay special deference to the oxyrhinchus, from which they take their name, they are afraid the hook may be defiled by having, at some time or

* See also Chap. VII.

other, been employed in catching their favourite fish. If one of this kind were found in a net full of others, the whole draught was set at liberty rather than take captive a single oxyrhinchus. The people of Syene, again, regarded the phagrus as the herald of the rising Nile, and as such abstained from it. This eel gave its name to Phagriopolis, another to Latapolis, while Elephantine venerated the mæotis, a silurian. But fishes proper are of frequent occurrence in Egyptian sculpture, and among the articles placed with the dead were very often small effigies in metal and clay of the fish-form; while dead fish of the sacred species were buried with as much ceremony as the cats, ibises, crocodiles, and other creatures that the Children of the Pharaohs worshipped.

These Egyptian fish were not of course totems in the proper sense; for the primitive man performs an act of positive sacrifice when he devotes to the religious tribal idea the best fish of the waters, and thenceforward abstains from eating them, whereas the Egyptians shabbily denied themselves only the refuse. They made that sacred which they could not eat. For it is an interesting fact that all the evidence we have on the point strongly tends to the suspicion that the pagan gods were put off by the priests with the very worst of the fish. If a species was poisonous, or belonged to a class that was generally unwholesome, it was declared "sacred"; the Church thus exerting its influence to prevent only that being eaten which was already, in their opinion, unfit for food. In the Mosaic prohibitions we find that fish without scales and fins were unclean, the reason probably being that the law-giver had just come up from Egypt, where the scaleless fish were taboo in consequence of their notorious unwholesomeness. Out of the six species venerated by the ancient Egyptians, two were

quite unfit for food and a third not worth the eating. The identity of the remainder has never been established, but the chances are that they belonged to sorts that no Egyptian would have eaten even if it had been permitted.

This process of hygienic selection does not extend, obviously, to the rest of the animal world, and yet the theory, if tested with beasts and birds, would, I venture to think, be found more widely applicable than might be expected. Another reason for forbidding certain animals as food was of course their being more useful in other ways; but as this does not concern fish (whose only uses are after death), it appears to me that the only system on which the priests of the oldest times—the thinking men of the community—distributed the honours of consecration among the finny tribes was selection by common sense.

I have now referred to fish that were not eaten because they were sacred, and to fish that were sacred because they were not eatable. There still, however, remains the fish which were both sacred and eaten. Leaving the Græco-Roman affectation of consecration out of the question, we find in India, where the fish holds a place of the highest importance in the religious system, a fish diet universal. The Ruhoo, bearing on its back three goddesses, personifies the junction of the three sacred rivers at Prayaga,* "the confluence," one of the holiest spots in India, where the Ganges and the Jumna combine with the mystic Saraswati that is supposed to flow underground to meet them here. Yet this fish is one of the staples of the food of a large proportion of the citizens of Prayaga. As a solitary fish, Vishnu filled the primæval ocean, and as a fish he rescued the Ark from the Deluge.

* Allahabad.

“ In the whole world of creation,
 None were seen but these seven sages, Manu and the Fish.
 Years on years, and still unwearied, drew this Fish the bark
 along,
 Till at length it came where reared Himavan its loftiest peak ;
 There at length they came, and smiling, thus the Fish addressed the
 Sage :
 ‘ Bind now thy stately vessel to the peak Himavan !’
 At the Fish’s mandate, quickly to the peak of Himavan
 Bound the Sage his bark ; and even to this day that loftiest peak
 Bears the name Naubandha.”

As a fish, *Brahma* instructed Manu in all wisdom. It was a fish that saved Kama, the love-god, and restored him to the earth, yielding its own life for his. *Varuna*, the genius of the waters, is the special protector of the fish therein. Yet, as I have said, the whole country is ichthyophagous. Were it not that other facts forbid it, we might whimsically detect in this impartial sanctity, combined with impartial consumption, a vein of reasoning analogous to that which leads the Polynesian to enrol all his best fish in his myths and then to eat them. That which he magnifies alive he canonises dead, thus adding to the three aspects of the pious-economic fish-myth a fourth, of a people who deify fishes out of gratitude to excellence, and call those most sacred which are the best eating.

Religious fish-legends next concern us. They are a literature in themselves. The Hindoo and the primitive I have already touched on. In the Buddhist Birth-stories, the oldest of folk-lore extant, the Teacher finds frequent subject for parable and moral in the finned things of the river. The love-sick monk in a previous existence was a fish, and his uxorious enthusiasm carried him into a net, and Buddha, passing along, found him about to be fried, and restored him to the water, telling him to go and sin no more. It was by her compassion to a fish that

Well-born arrives at her rewards, and from the story of the talkative tortoise that Lord Buddha admonished the loquacious king.

In Mahomedan tradition there is much fish-lore of the most curious kind, and commentators on the Koran vie with the Talmudists in the grotesqueness of invention. As a single example, I will take "The fish of Moses and Joshua," which, read irreverently, is really only a delightful explanation of flat-fish having so much more meat on one side than the other. Moses and Joshua ate the other half. The legend runs thus:—

"Moses was asked who was the most knowing of men, to which he answered, 'I'; whereupon God blamed him for this, because he did not refer the knowledge thereof to Him. And God said unto him by revelation, 'Verily I have a servant at the place where the two seas meet, and he is more knowing than thou.' Moses said, 'O my Lord, and how shall I meet him?' He answered, 'Thou shalt take a fish, and put it into a measuring vessel, and where thou shalt lose the fish, there is he.' So he took a fish, and put it into a vessel. Then he departed, and Joshua the son of Nun departed with him, until they came to a rock, where they laid down their heads and slept. And the fish became agitated in the vessel, and escaped from it and fell into the sea, and it made its way in the sea by a hollow passage, God withholding the water from the fish so that it became like a vault over it, and when Moses' companion awoke, he forgot to inform him of the fish."

But on their way they remembered it, and turned back to find it, and, coming to the rock again, there they met the man who was wiser than Moses. Now the question arose, What was the fish? and the answer was supplied by Hamed of Andalusia, who states that he saw in the Mediterranean "the fish of Moses and Joshua":—

"It is of the breed of that fried fish a half of which Moses and Joshua ate and the other half God revived. It is about a span long. On its one side it has bristles and its belly is covered with a thin skin.

It has but one eye and half a head. Looking at it on one side you would deem it dead, but the other side is perfect in all its parts. The people consider it as a good augury, and the Jews pay a large sum for it and carry it away to distant places."

The Koran allows the faithful to fish^o in the sea when on pilgrimage (but not to hunt game by the way), and sea-fish were specially permitted as food. At first they were unlawful, as the name of Allah frequently could not be pronounced over them before they died ; but, to remedy this, Mahomed, blessing a knife, cast it into the sea, whereby all the fish were blessed, and had their throats cut before they were brought on shore. "The large openings behind the gills are the wounds thus miraculously made without killing the fish." Another legend on the same subject says that Abraham, having sacrificed the ram instead of Isaac, threw away the knife into the stream that flowed near the altar, and accidentally struck a fish. "Fishes therefore are the only animals eaten by Mahomedans without previously having their throats cut."

By the Christian religion the consumption of fish is directly encouraged, for, apart from the general precedent afforded by the miracles in Holy Writ, the Church specially enjoins the diet ; and this, too, on such a scale that in the time of Queen Elizabeth, the^a annual "fish days " * were 145 in number. Among the annual Church

* The chief were the forty days of Lent ; the Ember-days at the four seasons, being the Wednesday, Friday, and Saturday after the first Sunday in Lent ; the feast of Pentecost (Whitsuntide) ; September 14 ; December 13 ; the three Rogation-days, being the Monday, Tuesday, and Wednesday before Holy Thursday ; and all the Fridays in the year, except Christmas-day when it falls on a Friday. Even after the Reformation the number of fish-days continued large, about 1596-7 those observed by the household of Queen Elizabeth being only some thirty-seven days short of half the year.

disbursements up to the end of the 16th century were herrings, "red and white," to the poor on Maundy Thursday. Those who, in pious observance of Christian ordinances, thus charged themselves with phosphorus were, let us hope, not aware that they were simply perpetuating the worship of Venus. Friday, again, is the *dies Veneris*, and fish, her own symbol, is therefore appropriate food for the day. The *poisson d'Avril* is the survival of the old Spring offering to Aphrodite, under whose auspices the constellation of the Fishes was then, in ascendant influence; and through the interrogatories of the old Confessional we can trace back some innocent, but significant, customs of the English country folk of to-day to the rites in honour of the goddess of Love, in the days when the world was young.

In connection with this pious fish-eating it is worth noting that their error as to the true character of the cetaceans betrayed our forefathers into breaking Lent, for under the impression that the whale, porpoise, and seal were fish, they ate them on fast-days. High prices, moreover, were paid for such meats, and "porpoise pudding" was a dish of state as late as the sixteenth century.

In other aspects also the fish was eminently a Christian symbol. It occurs frequently in the Roman catacombs, bearing on its back a bowl with wine and covered with wafers of bread; and in many of the tombs are found small fish in wood or ivory, while the simple figure of a fish on a gravestone or monument was employed as an emblematic acrostic* to point out to his co-religionists the burial-place of a Christian without betraying the fact to their pagan persecutors. It has been imagined that the pointed oval

* I-ch-th-u-s being the initial letters of the Greek words for Jesus—Christ—of God—Son—Saviour.

so common not only for enclosing pictures, seals, monograms, etc., but even for rings and ornaments, is the symbol of the fish, and the representations of the Virgin "in a canopy" or *vesica piscis*, are supposed therefore to have a specially Christian significance; but if it has any at all, it is a very heathenish one.

CHAPTER IV.

FISHES IN ARTS AND SCIENCES.

Fashions in fish-eating—Pisces Regales—Fishes in Art—In Astronomy—Legends of the Zodiac—In Astrology—Fish-gems.

BUT eating is not, after all, solely a religious exercise, and in the matter of fish, though the priests sometimes dictated the bill of fare, the people as often chose their dishes for themselves. Thus, in old Egypt, the priests abstained from fish altogether, and therefore, when all the rest of the people were obliged by their religion to eat a fried fish before the door of their houses, they only burnt theirs, without tasting them. So says Plutarch, and the reason which he tells us the priests gave for their abstinence was, that fish was neither nice nor necessary. But among the nation in general, the favourite kinds* were the *bulti* (Labrus Niloticus), the *kishr* (Perca Nilotica), the *beuni* (Cyprius Benni or C. Lepidotus), the *shall* (Silurus Shall), the *shilbeh* (the Silurus Schilbe Niloticus), and *arabrah*, the *byad* (Silurus Bajad), the *karmoot* (Silurus Carmuth).

As to the attitude of the Syrians towards such diet, I find some difficulty. That their priests also abstained from fish is tolerably certain, but it is difficult to reconcile the statement, that in consequence of Derceto, a Syrian divinity, having changed herself into a fish, the people of that

* According to Wilkinson.

country never touched any kind whatever ; and the other statement, that Queen Atergatis was so passionately fond of the food that she allowed none to be sold till the refusal of it had been offered to the royal kitchen. It is possible that the two traditions are really halves of a third, which states that Queen Gatis, who was also said to be inordinately addicted to fish-eating (tunny, conger, and carp, her favourites), was put to death by Mopsus the Lydian, who had her thrown into Lake Ascalon. That the princess should be deified and the fish of the lake abstained from, is strictly in sympathy with contemporary sentiment, and the conflicting testimony of the ancients I have quoted would thus be reconciled. But of course this is mere surmise.

That the Greeks ate fish, and had their fashions therein, is notorious, yet Homer never mentions fish in his banquets, and Ulysses is depicted as resorting to that diet only when in great extremity. In Rome, the fish mania, both as pets and as delicacies, was carried to such a pitch of insane, criminal extravagance, as to have been incredible, had not the savage satire and the fierce denunciation of contemporary literature assured us of the facts. It is enough to say that a single dish of fish might cost from £100 to £1000, and that pet eels were fed with human slaves. It is worth noting also that, in spite of the intolerable affectations of Roman connoisseurs as to the niceties of flavour between this fish, that had been caught on one side of a river, and that, which had been caught on the other, they all drenched their subtly-flavoured dishes with halec, garum, and other sauces, which were so strong and composite that it would have been hardly possible to distinguish a fresh fish from a putrid cat—except by the bones.

The ancient Britons were not, as a nation, fish-eaters, due

probably to the fact that our painted ancestors worshipped the streams, and from this pagan reverence for the waters, their naiad-folk, and the fishes they protected, I would venture to surmise that the objection of the lower classes at the present day to a fish diet has arisen.

Sea-fishing as an industry is said to have been introduced into Albion by St. Wilfrid, and the Anglo-Saxons, then abandoning paganism, came to indiscriminate fish-eating. In the fourteenth century sturgeon was declared a royal fish, and statutes exist (of a later date) restricting the consumption of porpoises, seals, and "grampus," as meats too dainty for the million. That Henry I. died of a surfeit of lampreys "is one of those things that every schoolboy knows ;" but the extraordinary estimation in which this fish was long held is a less familiar fact. Royal edicts have been published regulating the price of the dainty when the cupidity of fishmongers threatened to send it up beyond the purses of the rich, and King John sent special agents to the Continent to purchase lampreys. Gloucester city used at one time to send every Christmas a lamprey-pie to the sovereign.

Herring-pie also was once accounted a royal delicacy. Yarmouth, by its charter, was pledged to furnish the king annually with a hundred herrings baked in twenty-four pasties, and more than one private estate on the coast was held on a tenure of herring-pies. In Queen Elizabeth's reign, sturgeon, "whales," and porpoises were among the *Pisces Regales*, but it is not probable that her sister was an enthusiast, inasmuch as her royal husband was of opinion that fish was not proper food for human beings, "being only congealed water." France had its notable ichthyophagists in Louis XII., Francis I., Henry IV. (who kept twenty-five royal fishmongers), and Louis XIV. In China

the sturgeon is a royal fish, and in the Sandwich Islands,* the bonito, albicore, and squid, are among the monopolies of the king's table. That any one should quarrel over the privilege of eating squids may seem strange to us who reject them except as bait, but they were esteemed by the ancients, notably the Greeks, and are at this day eaten by all the races on the Eastern seas, as well as the nations of Southern Europe and the Mediterranean† generally. Odious as the idea of eating an octopus may be, it is not, after all, so strange as the Japanese mania for the poisonous furuke, by eating which, in defiance of imperial edict, they are enabled to obtain, at one and the same time, the carnal pleasure of a tasty dish and the posthumous honours of the Happy Despatch.

As properly leading out from my note preceding on the Patron Saints of fishes, their place in legendary art may be here briefly referred to. Notable among the paintings in which fish, in connection with their patrons, are conspicuous, are Raphael's noble piece, the *Madonna della Pesce*, in which the child Tobias, with the fish in his hand, is being brought by St. Raphael to the Virgin ;

* There the "lords of the manor" have also the right to specify one kind of fish as exclusively for their own eating, whenever caught in their waters.

† "Along the western coast of France, and in the countries bordering on the Mediterranean and Adriatic, they form a portion of the habitual sustenance of the people, and are regularly exposed for sale in the markets, both in a fresh and dried condition. Salted cuttles and octopus are there eaten during Lent as commonly as salted cod are brought to table in England ; and, thus prepared, generally form a portion of the provisions supplied to the Greek fishing-boats and coasters. This strange diet is chiefly obtained from Tunis, and in the Levant and Greek markets its trade name is octopodia or polypi."—Prof. Martin Duncan (*Cassell's Nat. Hist.*).

and the other that represents Tobias hauling the fish to land, with the Angel standing by. St. Peter in many pictures of celebrity carries a fish, and in the pictures of the "Calling of Peter and Andrew" and "Finding the Tribute-Money," and the celebrated cartoon of "The Miraculous Draught," his avocation is always conspicuously represented. St. Zeno, bishop of Verona (said to have been an enthusiastic angler), carries a fishing-rod in the statue in the church at Verona, and in early pictures of the Veronese school wears the habit of a bishop with a fish hanging from the crook of his crozier. The picture by Salvator Rosa of St. Anthony's fish-sermon is well known, as is also the mosaic in St. Peter's, Rome, *Navicula di Giotto*, which represents St. Peter drawing his nets. The same subject is engraved upon the Pope's ring, *l'anello del piscatore*. An armed knight with his foot on a sea-monster (a mediæval variation of the zodiacal Water-carrier) may, or may not, be St. Andrew of Scotland; while in another artistic representation of the heavenly system, in which the Apostles take the place of the pagan signs of the zodiac and Saints are used instead of the mythical figures of the constellations, I find St. Matthias paired off against the Fishes.

In Astronomy the sea-things occupy their full share of space, for among the principal constellations there are four marine creatures as against seven quadrupeds and three birds, and if we take the complete list the same proportion is maintained. Their presence also in the zodiac gives us one more link with the remotest past. Does not Proctor—and with something more than mere surmise—read in the configurations of the firmament the first suggestions of the story of Noah's Flood? and can we not by these recurrent

signs trace back—through the origin of Egyptian animal worship—through old Israel's twelve coincidences in the naming* of his sons—through the zodiac of Denderah, eight centuries before our era—to the very alphabet and rudiments of Aryan science?

What antiquities, then, they are, these sea-myths of our stellar hemispheres! Tumbling in open space, the happy Dolphin, belted with stars; the gift of grateful Olympus; the luminous Sea-lizard; Cetus, the shaggy whale, spangled from twinkling^o snout to twinkling tail, that, but for the strong bright-fronted Ram that intervenes, seems agape to swallow the suppliant Andromeda; Hydra, dripping stars as it goes, and trailing its gem-lit convolutions across the hemispheres; the Flying-fish,† feathered and beaked, darting its brief flight from the pole of the southern ecliptic; the austral Fish, with radiant eyes uplifted to the grateful flood that the Waterer for ever pours upon it; the Sword-fish, cleaving its bright way to encounter in the ocean of the firmament its hereditary foe; the Tortoise, that in its starry concave holds the lyre whence Mercury first struck the music of the spheres.

Above all, The Fishes of the Zodiac—

“The double Pisces, from their shining scale,
Spread wat'ry influence and incline to sail”‡—

foster the sailor-spirit in men and teach navigators to be

* Zabulun, “that dwells at the haven of the sea,” stands for the sign Pisces.

† So Pantagruel. “I saw here the sea-swallow, a fish as large as a dare-fish of Loire.” In Chaldean astronomy the northern of the Pisces is swallow-headed, as heralding the arrival of summer and its bird.

‡ This and succeeding quotations are from the translation of Manilius' poem by Creech.

boldly self-reliant, preside over sea-fights, and are the patrons of fishermen—whom they generously direct

“To sweep smooth seas with nets, to drag the sand,
And draw the leaping captives to the land,
Lay cheating wires, or with unfaithful bait
The hook conceal, and get by the deceit.”

But the children born under the sign are, by a poetical extension of the Venus tradition, hot-blooded, given to jealousies and strife :

“But could I rule, could I the Fates design,
The rising Fishes ne’er should govern mine ;
They give a hateful, prattling, railing tongue,
Still full of venom, always in the wrong.”

For the tradition is, that “when the skies grew weak and giants strove, and snaky Typhon shook the throne of Jove,” Venus fled the tumultuous scene, and hiding herself in the Euphrates as a fish, inspired the scaly tribes with new passions, “and with the Ocean mixt her Fire.” So, too, the Southern Fish claims Aphrodite’s favour, for the legend says that it saved her daughter from drowning in the Lake Boethe ; and yet another claims for it that it is the progenitor of all the fishes in the firmament.

Next “glowing” Cancer,

“As close in ’s shell he lies, affords his aid
To greedy merchants and inclines to trade.”

But over births his influence is hardly more auspicious than the Fishes’, though in omen * it is happy—

“The dream’s good,
The Crab is in conjunction with the Sun.”

* Under the influence of a conjunction of Jupiter, Saturn, and Mars, which took place in the year 1604, Kepler was led to think that he had discovered means for determining the true year of our Saviour’s birth. He made his calculations, and found that Jupiter and Saturn

And it is by the Gate of Cancer, Mercury standing at the starry portals, that souls descend to take possession of the bodies of men. Not that the reasons of the crustacean's exaltation commend it to popularity ; for when Hercules was fighting with the Hydra, Juno meanly sent Cancer to bite the hero's heel ; but Hercules merely stopped for a moment in his job, killed the crab, and then went on with the Hydra. The goddess, however, translated the smashed crustacean to the skies, the crabs thus rising

•
"On stepping-stones
Of their dead selves to higher things."

In astrology, fish forms were in great request, the mystery attaching to sea-things commending them to the special service of the necromancer. But besides the strange fish with which the man of dark science made his studio dreadful, and which in his computations played such high pranks as might have made Herschel weep, he professed a knowledge of occult influences in fishy products that opened up vast possibilities. Coral and amber, nacre and ambergris, were potentially dreadful. From the heads of fishes he took you the dread cimédia, that, properly handled, worked Darwinism backwards ; and from the tortoise the gem chelonia, which, smeared with honey and laid upon the tongue, bestowed the gift of divination, provided the stars were in auspicious conjunction. This precious thing bore the tortoise shape, and the Magi told wonderful stories of its powers in appeasing storms ; nevertheless the kind starred over with gold spots, if thrown together with a beetle into boiling

were in the constellation of the Fishes (a fish is the astrological symbol of Judæa) in the latter half of the year of Rome 747, and were joined by Mars in 748. . . Their first union in the East awoke the attention of the Magi, told them the expected time had come, and bade them set off without delay towards Judæa (the fish land).

water, would raise a tempest.* Once, therefore, find the chelonia, and you were Moses and Prospero, or Cassandra and the Witch of Endor, in one. Plutarch ('On Rivers') says that the sangaris produces the gem called Ballen, "the king," by the Phrygians. Ptolemy Hephaestion, the astrologer, describes a gem (asterites) found in the belly of a huge fish named Pan, from its resemblance to that god. This, if exposed to the sun, shot forth flames, and was a powerful philtre. Helen used it for her own signet, engraved with a figure of the Pan fish, and owed to it all her conquests. To these may be added the astrobolos, "the fish-eye," and the "adularia," both of them gems of force in the Black Art, and also, as being gifts of the sea, those shells which, powdered into potions, made love-philtres. And no wonder! What was the happy shell that held Venus before she was vouchsafed to the earth? What fortunate mollusc lent Amphitrite its pearly home for a chariot? Yet supreme among all shells must ever remain the rough rind that holds the pearl, the delight of poets, the ambition of women, the favourite of all.

Pearls were supposed to be sea-dew, which the oyster drank in, and by its own mystic chemistry transformed into gems, and the differences in colour were fancifully attributed to climatic influences. On cloudy nights the oyster secreted dark pearls; and when the moon shone brightly, "the perles were white, fair, and orient." They were soft till the sun shone on them, and then they hardened. One legend (it is a Moslem one) tells us that devils dived for pearls for Solomon, but devils here means only "jinns"; and it almost needed this interference of a supernatural agency to account for man being the master of such an exquisite possession.

* 'Gems and Precious Stones' (King).

CHAPTER V.

ISHES IN FABLE AND FAIRY-TALE.

Fishes in Fable—as a rule Foolish Folk—but the Crab wise—the Tortoise not always sagacious—nor the Flat-Fish—Fishes in Fairy-tale as a rule Benign—also in Folk-tale of all countries—Fishes the Patrons of distressed Heroes and Heroines—Tendency of Fishermen to become Princes—Grateful Fishes—The Jewel-finding Myth—Fish as Guardians of Treasure—Cities of the Plain now Lakes, and their inhabitants Fishes—Some Fish-mysteries.

IN the story of the “Cruel Crane Outwitted,” the bird, finding the fish likely to die of drought in a fast-shrinking puddle, offers to carry them across to a large and pleasant lake of which he knows. After much suspicious demurring, the fishes go with the crane one by one, and are, of course, eaten up in succession. Left last of all, however, is an old crab, and the bird proposes to take it over too to join its old comrades. “Very good,” says the crafty crustacean, “but as you cannot very well hold me in your beak as you did the fishes, suppose I hold you with my pincers.” The crane agrees to this, and having arrived at the shambles, announces to the crab that he is now about to be eaten. “Not a bit of it,” is the reply. “On the contrary, if you do not take me to the lake at once, I shall nip your head off your thin neck.” So the crane, in great alarm, takes Cancer straight to the lake, but before getting off the bird’s back the crab bites its head off.

This fable illustrates the difference of character in fables between the fish and the crustaceans. The former are always used as the stupid persons of the incident—the

foolish folk who are found dancing in the nets just when they should be most serious ; who get caught and beg the fishermen to put them back, " so that we may grow larger and better worth your eating ;" who catch hold of hooks in order to pull the angler into the water ; who rush into the net just to make fun of the fisherman, forgetting that, though it is the same old net, with the same meshes that they used to slip through when they were tiny fry, they have been gradually getting bigger themselves ; who fall victims, in fact, to every designing person who comes their way.

The crab, however, enjoys a character for sagacity, and humour of a grim sort. His " swike " with the crane was excellent fooling ; and so again, when he kills the snake and sees it lying stretched out along the ground, he addresses the dead viper with the caustic moral—" This fate would never have befallen you if you had lived as straight as you have died." The crab runs the fox a race, and as soon as his opponent starts catches hold of its tail. When the fox reaches the winning-post it turns round to see how far the crab has got, when the wily crustacean quietly drops off, crosses the winning-line, and startles the fox with—" What ! come at last, are you ? I've been here some time ! "

Tortoises also are occasionally credited with ingenuity. Thus, when the great bird Kruth came to eat it, the tortoise begged to have one chance of life given it, and therefore offers to race the bird across the lake, Kruth to fly and the tortoise to dive. The bird agreeing, the testacean calls its kindred together, and stations them, at short distances apart, all round the lake, and having made these preparations gives Kruth the signal to start—Off ! and down he dives under the water. Away goes the bird straight across the lake, but wherever he tries to settle, up pops a tortoise, and Kruth, not knowing one

from another, concludes it is always the same old tortoise, and flies off in disgust. But this is exceptional, for the tortoise as a rule is a fool. He begs eagles to take him up into the sky, "to see the world," and gets dropped on to rocks and eaten in return for his misplaced confidence. He pretends he will tell the king of the birds a great secret if he will carry him over a range of mountains, and is made half-way to tell his secret, and then, as usual, dropped on to the customary rock. So again when his good friends the wild geese are carrying him to the Golden Cave on the Himalaya Mountains, the people of a town over which they pass, go into fits of laughter at seeing two geese with the ends of a stick in their beaks and a tortoise hanging down by his mouth from the middle. The tortoise cannot resist the opportunity for a retort, but he has hardly got the first word out of his mouth when down he comes smash on the ground.

Flat-fish, again, have a distinctive character, their grotesque facial arrangements suggesting superciliousness, and a general kind of wry-mouthed ill-nature. The fluke, therefore, gets its mouth twisted round for sneering at the coronation of the herring: in Grimm it is the sole, and elsewhere the plaice; while all the flat-fish are flattened out for being disagreeable, the rays for stinging a god when out fishing, and the turbot for upsetting a nymph it was carrying, and so forth. But with these few exceptions the fishes of fable are simply foolish folk.

In fairy-tale they are invariably benign. Thus in the admirable Red Indian story of "Sheem, the Forsaken Boy," the sturgeon that saves Owasso plays a beneficent part. The wicked old magician, his father-in-law, takes him out fishing, and just as Owasso is about to spear the sturgeon, he makes his enchanted boat dart away from under the

striker's feet, and the young man falls into the water. But the sturgeon magnanimously carries Owasso to the shore (where it gets cooked and eaten for its pains), and bye-and-bye the wicked Manito comes to well-merited grief at his son-in-law's hands. Again, in the story of "The Little Spirit, or Boy-man," the main incidents are fish ones. The boy-man steals the fish of the giant brothers, and incurs their dislike, and then upsets them by a stratagem into a fishing-hole in the ice, and so kindles their dislike into wrath. But he outwits them, and takes refuge inside a fish which he calls to his assistance, but which he afterwards betrays and eats.

In Portuguese folk-tale the recurrence of the fish-figure is very marked, and always in the same benign aspect. Thus in the story of the Baker's Idle Son (that has its well-known Russian and German counterparts), the fish that comes up to him in the wood to eat his crumbs, and though caught by the boy, is released when it begs for its life, continues to befriend him till his fortunes are completed: the good daughter of the wicked witch takes the form of an eel, to assist the prince; a whale, at the cost of its own life, rescues the maiden from whose head the pearls used to fall when she combed her hair; in the Portuguese version of Cinderella—the Hearth-cat, as she is called—it is a fish which plays the part of the good fairy or the white pigeons; St. Peter makes use of a fish to save his little god-daughter from death; a beautiful fish is caught, and submits to being sliced up into pieces, for the aggrandisement and future welfare of the family of his captor. This last story is one of many that are common to the nurseries of the whole world. In the tale of the Gold Children, the golden fish that is cut up into six pieces, to the great good fortune of the fisherman and his family, is the same

as the beautiful fish of Breton fairy-lore, that makes its captor promise to eat its brains, as all manner of good luck will then overtake him ; and the same as the numerous other fishes who reward those who catch them with all the riches and pleasures of life. Common also to most fairy-lore are the flounder that was an enchanted prince, which gave to a fisherman all that his wife asked for, even to becoming Pope, but when she asked to be the Creator, the flounder, in indignation, sent her back to her original state ; the grateful fish in the story of Ferdinand the Faithful ; the accommodating fishes who, to help the drummer out of his difficulties, jumped out of the pond and arranged themselves in proper order on the grass ; the other fishes in Russian and Portuguese stories that assist heroes and heroines to accomplish impossible tasks ; the fish that so wonderfully refreshed the lovers when they were flying from the Dwarf's Island. In all these cases, and many more besides, the benign and philanthropic aspect of the fishes is consistently expressed, and even when these creatures are not actively employed in what may almost be called the routine of their amiabilities, they are found co-operating with men and women for their advantage in a most disinterested way. Fishermen are perpetually arriving at honours and wealth by the advice of the things they hook and net, and it is quite in the day's work if a fisher-lad becomes a prince and marries the king's daughter. When Biroquoi and his friends are arming the Prince, the fishes furnish the young warrior's "harness," as Don Quixote would call it. They gave him a brilliant cuirass of the scales of golden carps, and placed on his head the shell of a huge snail, which was overshadowed with the tail of a large cod, raised in the form of an aigrette ; a naiad girt him with an eel, from which depended a tremendous sword

made out of a long fish-bone ; and lastly, they gave him the shell of a large tortoise for a shield. So that by the time Babiole was equipped *cap-à-pie* there had been a considerable destruction of friendly fishes. When the seal-fisher falls into the water, and is caught by the seals, what do they do with him? They take him down into Seal-world, and there show him a harpoon of his and a wounded seal, and they make him lay his hand on the wound which he had inflicted, and swear that he will never hunt seals any more. And then they take him, by a short-cut, back to his home again. Even when fishes swallow human beings, they do so in the most friendly spirit imaginable. The number of notable personages that have thus been amiably gulped down, and afterwards restored to friends and sunlight, is very large indeed, and the conduct of the fish is in every case admirable. When, for instance, the "great fish" swallowed Jonah, it did so with the best intentions, for, so the Arabic legend says, it swam to shore, a three days' journey, with its mouth above water all the way, for the greater convenience of the prophet's breathing. The good taste of such behaviour is undeniable.

But, by far the most widely-spread legend of the sea-things' philanthropy is that which makes them the guardians of lost treasures, and the vehicle for their restoration to their proper owners — the fish-with-the-ring-inside-it myth, that every country in turn has adapted from the original story that was told on the banks of the Oxus to Aryan children, long before Britain, as we know it, had come to the surface of the sea.

The salmon with a ring in its mouth, that figures in the arms of Glasgow, is one of the many fishes credited with being the means of lost jewels returning to their owners. A certain queen gave a soldier, with whom she had fallen

in love, a ring that had been presented to her by her consort; but the king discovered the intrigue, and having obtained the ring, threw it into the Clyde, and then demanded it of his disloyal lady. In her alarm she sought help from the holy Kentigern, and the saint, proceeding to the river, forthwith caught a salmon which, on being opened, was found to have swallowed the all-important jewel. So the queen regained the good graces of the king, and, it is satisfactory to be able to add, lived a better life ever afterwards.* A Tyne salmon caught in its mouth as it fell, and was the means of restoring to its owner, a ring that had dropped off a bridge at Newcastle; and a Thames pike has been known to be equally opportune and useful. The best known of all such narratives is, of course, that of Polycrates' signet-ring, which was thrown into the sea and recovered from the body of a fish presented to the king by a fisherman. But this is by no means the original of the episode, for Solomon recovered his throne by a fish restoring him the talisman ring by virtue of which he held dominion over all the devils;† and more ancient still is the

* A variation is to be found in the following:—"The legend of the fish and the ring," says the Rev. Dr. Dibdin in his '*Northern Tour*,' "is extant in well-nigh every class-book in Scotland; old Spotswood is among the earliest historians who garnished the dish from the Latin monastic legends, and Messrs. Smith, M'Lellan, and Cleland have not failed to quote his words. They report of St. Kentigern, that a lady of good place in the country having lost her ring as she crossed the river Clyde, and her husband waxing jealous, as if she had bestowed the same on one of her lovers, she did mean herself unto Kentigern, entreating his help for the safety of her honour, and that he going to the river after he had used his devotion, willed one who was making to fish to bring the first that he caught, which was done. In the mouth of the fish he found the ring, and sending it to the lady, she was thereby freed of her husband's suspicion."

† Sale gives the following version:—"Solomon entrusted his signet with one of his concubines, which the devil obtained from her and

recovery of Sakuntala's ring by a fish, which thus enabled King Dasyanta to marry the lady of his love.

From this fancy of the Aryan poet has descended an immense progeny of treasure-retrieving fishes, and the ring of Sakuntala, like the magic circlet of the Persian story, has begotten innumerable rings exactly like itself.

In the 'Arabian Nights' is the well-known tale of the priceless diamond which the fisherman takes from a fish, and which, placed on a shelf in the cottage, gives so much light that they are saved all expenditure in oil, and which when sold makes the family rich for ever and for ever. In Scandinavian myths is that of the long-lost crown, which the fishes kept safely down among the rocks, till the real heir to the throne came a-fishing, when they rolled it into his net; in Russian, that of Ivan, who finds the all-important ring by the help of the perch—the herrings try to lift the casket to the surface, but fail, and so two dolphins come and put their shoulders to the wheel, and the ring is regained; in the Portuguese is one that tells us how St. Peter's god-daughter is ordered by a malicious queen to dive into the sea to bring up a ring which she has purposely thrown into the waves, but St. Peter restores it to the little girl by making a fish swallow it and be caught for the King's table. In the other story of the Basket of almonds, the king of the fishes himself brings up the key which the monarch has thrown into the sea, its recovery being the price of the hero's marrying the princess; in the (?) Italian story of the White Snake the

sate on the throne in Solomon's shape. After forty days the devil departed and threw the ring into the sea. The signet was swallowed by a fish, which, being caught and given to Solomon, the ring was found in its belly, and thus he recovered his kingdom."

three grateful fish bring to the servant, in a mussel-shell, the ring that brings every one joy ; in the Russian the crayfish recovers the merchant's magic snuff-box. Nor are these, probably, a half of the fairy legends that have all grown out of Kalidasa's beautiful creation.

Specially noteworthy among these jewel-restoring, and so (by a not unreasonable extension) treasure-defending, fishes is the pike. It is, says Afanassieff, a fish of great repute in northern mythology. One of the old Russian songs, still sung at Christmas, tells how the pike comes from Novogorod, its scales of silver and gold, its back woven with pearls, and costly diamonds gleaming in its head instead of eyes. And this song is one which promises wealth, a fact connecting the Russian fish with that Scandinavian pike which was a shape assumed by Andvarri, the dwarf-guardian of the famous treasure, from which sprang the woes recounted in the Volsunga Saga and the Nibelungenlied. According to a Lithuanian tradition there is a certain lake which is ruled by the monstrous pike Strukis. It sleeps only once a year, and then only for a single hour. It used always to sleep on St. John's night, but a fisherman once took advantage of its slumber to catch a quantity of its scaly subjects. Strukis awoke in time to upset the fisherman's boat, but fearing a repetition of the attempt, it now changes every year the hour of its annual sleep.*

Apart from any special characteristic in the nature of their service to man, fish play in the folk-tale a most important part. In every country the cultus of the water-spirit has more or less obtained, and the aqueous feature of local myth being thus popularly accepted, the prominence of water-things is a natural result, just as among tribes to

* Ralston's 'Russian Folk-tales,' chapter iv.

whom the sea, as a means of livelihood, is as important as the land—whether we go to Polynesia or Scandinavia to find them—we find marine and fishery folk-lore predominant. Thus the old goblin from Norway, who came a-wooing to the Elfin-hill, and spoke so pleasantly about the stately Norwegian rocks and the waterfalls, and the salmon that leaped in the spray while the water-god played to them on a golden harp, could never tell a story without something about a fish in it. And again, when he spoke of the cheery winter nights within doors, he described particularly how the salmon would gambol in the water outside his cave, and dash themselves against the rocks, but could not come in.

But into this prodigious literature of fairy-tale fish, in which the finny ones merely play the part of wonder-workers, or represent the victims of sorcery, I have no space, though all the will, to plunge. But how can I close this chapter without referring to that little fish of the Arabian Nights which was really a pomegranate seed, which the cock (who was really a princess) overlooked with such disastrous consequences to all concerned? Or to those other fishes, white, red, blue, and yellow, that the fisherman found swimming in the enchanted lake between the four small hills, and which when brought into the Sultan's palace led to such notable results?

This formation of a lake as a punishment for the wickedness of the People of the Plain is a widely-spread tradition.* Thus, so local legends say, Lake Tanganika was called into existence. "Years and years ago, where you see this great lake," so runs the African story, "was a wide plain, inhabited by many tribes and nations, who owned

* The mythologist may read in the following story a significance which supports Gubernatis.

large herds of cattle and flocks of goats, just as you see Uhha to-day. On this plain there was a very large town, and in it lived a man and his wife, who possessed a deep well which contained countless fish, that furnished both the man and his wife with an abundant supply for their wants; but as their possession of these treasures depended upon the secrecy which they preserved respecting them, no one outside their family circle knew anything of them. A tradition was handed down for ages through the family, from father to son, that on the day they showed the well to strangers they would be ruined and destroyed. It happened, however, that the wife, unknown to her husband, loved another man in the town, and bye-and-bye, her passion increasing, she conveyed to him by stealth some of the delicious fish from the wonderful well, and afterwards, when her husband had gone, she took him to the enclosure and showed him what appeared a circular pool of deep clear water, which bubbled upwards from the depths, and she said, 'Behold! this is our wondrous fountain; is it not beautiful? And in this fountain are the fish.' The man had never seen such things in his life, for there were no rivers in the neighbourhood, except that which was made by this fountain. His delight was very great, and he sat for some time watching the fish, and bye-and-bye one of the boldest of the fish came near where he was sitting, and he suddenly put forth his hand to catch it. But that was the end of all!—for the Muzimu, the spirit, was angry. And the world cracked asunder, the plain sank lower and lower and lower—the bottom cannot now be reached by our longest lines—and the fountain overflowed and filled the great gap that was made by the earthquake, and now what do you see? The Tanganika! All the people of that great plain perished, and all the houses and fields and gardens, the

herds of cattle and flocks of goats and sheep, were swallowed in the waters."

But why can we not find some friendly fish, in all this host of friendly fishes, to clear up some of our water mysteries? What, for instance, is the meaning of this story from the Arabic :—"A traveller near the Caspian Sea saw some fishermen catch a large fish and perforate its ears, when suddenly a ruddy-coloured maiden, of a beautiful countenance, with long hair, came out of one ear, began to smite her cheeks and to tear her hair. God, the Creator, had provided her with a short white apron, which extended from her waist to her knees." And what fish was it that gave its shell, six fathoms long and three in breadth, to make a bridge across the palace-moat of the King of the Genii; and what was the monster, "resembling a green meadow," on which Sindbad and his fellow-voyagers landed to cook their meals, and to which we are indebted for all Sindbad's subsequent adventures? What were the fish that ate the bitumen that flowed from the Inaccessible Mountain and returned it to the waves as ambergris, or the others that so pleased the fair Persian when the Caliph played at being Fisherman? What was the sea-beast St. Margaret overcame, or that other with which Beorwulf fought for a night and a day? Can any one tell me the species of Thiodvitnir's fish that plunges everlastingly in the roaring Thund?

CHAPTER VI.

FISH IN HERALDRY.*

Frequency of Fish-crests—Derived from Names or Puns upon Names—
 —from Privileges of Fishery—from Incidents of Family History
 —Towns with Fishing Rights—Badges of the Piscatorial Franchise—
 Perpetuation of Old-world Myths—Fishes of Fancy—
 Mermaids and their Relatives—Crustaceans—Shell-fish and
 Shells—Fish-bones as a Crest—Fish on Signboards.

HERALDRY has been called "the science of fools with long memories," but, regarded more sympathetically, the title which heralds claim for it, that it is "the shorthand of history," is better deserved. It is an epitome, also, of the strangest fictions and the most beautiful fancies of past times. For though heraldry proper does not date beyond the twelfth century, its subject reaches back through all the world's traditions and myths to the very remotest antiquity.

Sylvanus Magnus, in his anxiety to prove that Adam was a gentleman, has given him a coat of arms. But heraldry needs no such absurdity of patronage to commend it. For though as a science it may be modern enough, it has been a loadstone both to myths and historical facts,

* The heraldry of fish is a curious study, and in the works of Moule and Mrs. Bury Palliser is invested with a remarkable interest from the intelligence with which history, folk-lore, legends, and superstitions, are used to illustrate the various devices and to throw light upon both badges and mottoes. In the charming pages of Planché the facts of heraldry, and the broad rules upon which that fantastic science works, are set forth with a delightful amplitude of queer lore.

and in its lucid preservation of them has been veritable amber.

In badge and device, shield and crest, the fish-form is very frequently recurrent, and research into the figure-heads of the vessels of antiquity would probably, while extending the legitimate area of heraldry, show that the fish and sea-monsters which are so conspicuous in modern coats-of-arms are, in some cases, the survival of the badges with which the sea-going heroes of old delighted to adorn their war craft. That heralds have not taken any notice of this, the earliest European mode of expressing upon property the distinctive emblem of the owner, is somewhat remarkable, for in this old-world fashion a clue might perhaps be picked up that would connect the dolphins, salmons, pike, and so forth of the present day, with the primitive clan-animals and totems to which I have already alluded.

Meanwhile, there is an abundance of fish-heraldry connected with those popular beliefs which form the subjects of my previous chapters; and, indeed, the relation which the present chapter bears to the rest of this pamphlet is an apt simile of the relation of heraldry in general to all previous history. For it traverses every subject, and concerns itself with each phase of animism in turn. I shall treat this chapter, therefore, as an epitome of those that precede it, and follow fish heraldry in particular through the same aspects, and in the same sequence, as I have dealt with fish-lore in general.

Fish crests and badges have, it seems to me, been acquired by three means—from the resemblance of name, from privileges of fishery, and from incidents in personal history. To the first class belong the impresas of the families of Barbel, Breame, Chub, Codd, Crabbe, Dolphin,

Eales, Fish, Fry, Goujon, Haddock, Hake, Herring, Karpfen, Loach, Mackerel, Mullet, Pike, Roach, Seal, Shelley, Smelt, Sprat, Sturgeon, Tench, Troutbeck, Whalley, Whiting, and no doubt many others. A number more take their cognisance from local names, such as Butt (flounder), Chabot (miller's thumb), Dare (dace), Geddes and Lucy (pike), Sparling (smelt), Tubbe (gurnard), Gobyon (gudgeon), Cobbe (herring-fry), Garvine (garvie or sprat), and Carter (carter-fish or sole); while very many others adopt as a crest either some fish which bears a name of proximate resemblance, as Bar (barbel), Sammes (salmon), Conghurst (congers), Piketon (pike), Garling (gar-fish), Heringot (herring), Tarbutt (turbot), Ellis or Elwis (eels); or else one upon which, *more heraldico*, they can pun or make a joke, as the head of a bull for the Gurneys (a gurnard being also called the "bull's head"); a fish-skeleton for armorial bearings because an otter was the crest. The Caters have a salmon because that fish was often the "standard" of an entertainment that had been properly catered for; the Cheney's a burbot, or coney-fish, with a rabbit; the Dishingtons a scallop-shell, the pilgrim's dish. The Lucy family has the pike's head, which is arrived at in two ways: first as the head of the luce (the pike), and second as the fleur-de-luce (the *fleur-de-lis*), which in its shape is like the head of a halberd or pike.

Another variety of the fish-crest (but still connected with the name) is that in which any fish for which a particular river happens to be famous, is adopted in the arms of families who take their name from that river or an estate upon it. For instance, Yarrell bears the ruffe which abounds in the Yare; Way (from Wey), a salmon; Streatley, an eel-spear, that place being noted for that form of sport. The Broughams bear a pike, from the abundance

of that fish in the Lowther; and the Glynns a salmon-spear, from the fishery at Glynn-Ford, on the Fowey.

As other instances of "privilege" (personal) may be noted the Lostwithiel crest of fish, the Earls of Cornwall having feudal rights of fishery in the Fowey, and the horn of tenure of the Hungerford burgesses; while among other English crests typical of the franchise of rivers are eel-baskets, oyster-dredges, fish-weirs, nets, and fish-hooks. The cognizance of the "Stern Falconbridge"—"the thrice victorious Lord of Falconbridge, Knight of the noble Order of St. George, Worthy Saint Michael, and the Golden Fleece, great Mareschal to Henry VI., of all the wars within the realm of France"—*—was "the fysshe hoke." In Germany, this heraldic indication of rights in waters is very frequent, the fishing-spear, or "pheon,"† recurring abundantly in family escutcheons.

Analogous to this, of course, is the representation on the civic seals of fishing towns, of the particular fish that was most important. Thus Kingston-on-Thames bears the salmon, in reference to "the privilege of fishery" long enjoyed by the town. "By charter of Philip and Mary, a fishing-weir is held by the Corporation of Kingston in consideration of repairing the bridge, which was formerly of wood, but has been lately rebuilt with stone, and the emblems of their privilege, three salmon, are sculptured over the centre arch." For the same reason the burghs of Peebles, Lanark, and Helmsdale, show the same fish on their seals—the salmon fishery at Helmsdale (in Sutherlandshire) being one of the ancient privileges of

* The fishing-spear, or "pheon," better known now as the broad-arrow, has been the royal mark of possession from the days of Cœur-de-Lion.

† 'Henry VI.,' Part I., act iv., scene 7.

the dukedom. The town seal of Coleraine shows the salmon; and the Lords of the Isles, as masters of many fisheries, bear the same fish. The town of Stafford (Izaak Walton's birthplace) is on the Sow, a river noted for its trout and grayling. A charter from King John confirmed the privileges which had been held by the town from remote antiquity, and the corporation seal, showing the fish in the stream, with the castle on the bank, alludes to this right of fishing. So, too, Newcastle (on Trent) bears an allusion to a "franchise" of fishery. Yarmouth has, of course, herrings, and has carried them ever since King John gave the burgesses their charter with the right of the fishery, of which till then the privilege had vested in the Barons of the Cinque Ports. Wexford displays the hake; and on the seal of Congleton (in Cheshire) two congers glare at each other. Kilrenny, in Fifeshire, carries fish-hooks on its shield as typical of its chief source of revenue. Dunwich, Southwold, and Inveraray, all confess their gratitude to the herring; and Truro, Looe, Fowey, and other Cornish towns, to the pilchard.

As illustrative of the third class, the fish-crests commemorative of incidents of personal history are the Constantinople dolphins of the Courtenays; the whale of the Enderbys, whose ancestors were mighty fishers in the Northern Seas; the barbels of the Colstons, one of those fishes having the credit of stopping a leak in a ship in which a Colston was embarked; the shark of the Watsons, Sir Brook Watson having lost his leg from the bite of a shark in the harbour of Havannah.

For the connection of heraldry with the sea-myths of antiquity it would really be only necessary to instance the dolphin. It is with heralds the "chief of fish"; and just as in Hellenic devices it was always used to represent the

fish-world in general, being placed at the feet of Venus, on the tripod of Apollo, in the beard of Poseidon, at the heels of Orpheus, and employed perpetually to symbolize the ocean itself,—so in the modern art of emblematic designing it is the hieroglyph of fish in general. Thus a great many towns that owe their prosperity to their fisheries bear a dolphin as their cognizance. Two dolphins embowed within a shield are upon the seal of Brighton. Poole carries a dolphin and mermaid. So, too, among many others on the Continent, Dunkirk, Dornheim, Otranto, Bernbach, Onoltzbach, Swartzač, bear the dolphin as a “fish.”

Old gems show us Neptune on a dolphin, Arion on another, Amphitrite in her shell drawn by a team of dolphins, and ships always attended by friendly dolphins. Emperors of Rome had the dolphin and anchor* for the device of their seals, and under the Greek empire the dolphin continued an imperial cognizance. So in later times English admirals took the sea-god or the dolphin for their supporters. Italian academies bore the emblem of Arion with his harp—

“A fiddler on a fish through waves advanced ;
He twanged his catgut, and the dolphin danced.”

Princesses borrowed Amphitrite's shell and steeds, and European kings adopted the ensigns of bygone empires. Fortune on a dolphin was the device of Charles, Archduke of Austria. Admiral Chabot had the dolphin and anchor of Titus and Vespasian, as also had that Adolphus of Nassau who was killed at the Battle of the Spurs. Charles V.

* A dolphin twisted round the anchor, with the legend “Hasten slowly” (so the English family of On-slow). Analogous devices are the crab and butterfly of Augustus, and the tortoise rigged with sails of the Tuscan Dukes.

used the dolphins for supporters, as bettering in swiftness the azure greyhounds which formerly held that place of honourable trust; and Portugal among its royal crests has the dolphin and ship. Another fish-antiquity that has survived is the remora. Thus Giovanni Battista Bottigella, of Padua, who fought in the Italian wars under Ferranti Gonzaga, took for device a ship in full sail, with the remora, or sucking-fish, attached to it, and the motto, *sic frustra*. Another motto for a similar crest is *Sic parvis magna cedunt*, and it is in this sense that Spenser employs the figure in his verse. The mythical fragrance of the cuttle-fish suggested to Domenichi to give the Cardinal Ferrara as device a sepia, with the motto, *Sic tua non virtus*, "meaning that as the cuttle-fish by its sweet odour attracts other fish around it, so the Cardinal, by the sweetness and affability of his disposition, drew all men after him." By the ancients, again, the seal was supposed to enjoy immunity from lightning, and among those who borrowed the protection of its skin was the Emperor Augustus, who always wore a belt of seal-fur. The idea arose from the fancy that the seal sleeps most profoundly during thunderstorms, and a seal slumbering peacefully on a rock in the midst of a stormy sea, still survives as one of the devices of the Dukes of Mantua. The crab again was believed by the ancients to grow only during the waxing of the moon;* hence the crab of the Costi family, looking gratefully at the moon which warms the sea and makes the shelled thing comfortable, with the motto, "I take my form from its varied aspect."

From the old fiction of the sea-mouse piloting the

† "That planet," says Pliny, "is comfortable in the night-time, and with her warm light mitigateth the cold of the night."

whale,* James V. of Scotland took his device of the whale and little fish, with the motto "Urget majora."

As perpetuating other old superstitions, should be cited the sea-lions borne by the Earls of Thanet (where, says Moule, "the inhabitants, partaking of the amphibious character of the sea-lion, live by sea and land, making the most of both elements as farmers and fishermen"); the black sea-lions of the Harlands; the blue one of the Duckworths. The sea-horses, as an emblem of naval dominion, are among the insignia of our Admiralty; and, among other coats-of-arms, are to be found in that of David Garrick. The Earls of Cardigan also display the sea-horse.

Heraldic variations of other terrestrial monsters of fancy are the sea-griffin (to be seen on a pillar in Iffley Church), the sea-unicorn of the Prussian arms, and the antlered fish.

The mermaid and her relatives are especially popular as devices; and the half-human half-fish monster that from the Oannes of ancient Chaldæa to the Nibanaba of the Canadian Indian, has always held a place in popular belief, is a very conspicuous, and indeed beautiful, device in heraldry. In French heraldry the mermaid is called the Siren; in Germany she has two tails; in the Italian she carries a harp; and in many cases in each country she is crowned. In England it is a very ancient crest; and among others the Lords Byron, the Earls of Portsmouth (a black mermaid with golden hair), with the families of Bonham, Broadhurst, Garnyss, Hastings, Johnson, Lapp, Lauzun, Mason, Rutherford, Moore, and many

* "For whereas the whale hath no use of his eies (by reason of the heavie weight of his eie-brows that cover them), the other swimmeth before him."

others, display the sea-maiden in their armorial bearings. With her comb and looking-glass she smiles at us from the shields of the Holmes, Ellises, Lapps; and as a supporter holds up the arms of the Viscounts Boyne and Hood, the Earls of Howth and Caledon, and is borne by the heads of the families of Sinclair of Rosslyn, and Scott of Harden. Two mermaids crowned are the supporters of the Boston arms. La Mellusine, "a very beautiful syren in a bath, who with one hand combs her thick hair over her shoulders, and with the other holds a mirror," is an instance of its very frequent device in French heraldry; and another, on a coronet, holding a bottle and a glass, a specimen of the Belgian "Mermaid."

Her kindred, the tritons, are also familiar badges. As a crest, a triton leaving the sedges is borne by the Tatton Sykes; a merman with a hawk's bill is the crest of the Lany and Cratfield families. Two Tritons support the Lyttelton arms, and other instances are displayed on the shields of the Earls of Sandwich, and some of the Campbells.

Of fishes, religious and ecclesiastical, the science takes comprehensive notice, and from the walls of Denderah and the tombs of the martyrs, the fish symbol has come down to our own day, and the Pisces may be seen on the doorway of Iffley Church, in the nave of Peterchurch in Herefordshire, and elsewhere. Whales are the insignia of Whalley Abbey; bream of Peterborough; haddock of Petershausen; herring of St. Edmund's, and also of the Black Friars Priory at Yarmouth. The arms assumed by monasteries were sometimes those of their benefactors, as the pike of Calder Abbey, largely endowed by the Lucy family, and the salmon of St. Augustine's at Bristol, in memory of the fishery attached to that abbey by the Lords of Berkeley.

Many prelates and some primates have borne fish crests. Thus Peter Courtenay, Bishop of Exeter, and afterwards of Rochester, bears the dolphin of Constantinople—a previous Peter of the house having attained to the purple, and transmitted it to his sons Robert and Baldwin. An azure dolphin curves itself upon the arms of John Fyshar, another Bishop of Rochester, who also bore three eel-spears—Rochester Cathedral being dedicated to St. Andrew, who was put to death with those instruments. William James, Bishop of Durham, also bore a black dolphin; Henry Robinson, Bishop of Carlyle, a flying-fish; John Cameron, Bishop, and James Beaton, Archbishop, of Glasgow, carry the salmon of the city arms; Cardinal Benlivena, a grayling; Richard Cheney, Bishop of Gloucester, the ling; Cardinal Enrique de Guzman, two pots of eels; William Attwater, Bishop of Lincoln, three crayfish; and so on through a lengthy catalogue of prelates who have gone to the fish-world for their crests. Archbishop Herring, and Thomas Sprat, Bishop of Rochester, display on their coats the fishes of their own name.

Of the higher dignities of fish in heraldry, imperial and royal examples have already been given. Among the remainder, barbel appear in the royal arms of Bohemia and Hungary, and again in the arms of Queen Margaret of Anjou; salmon on those of the Princes of Lorraine; a dried cod crowned is the arms of Iceland,* and borne by the Kings of Denmark; the crab, “an emblem of inconstancy,” says Moule, appears on the shield of Francis I., and, according to Sir Samuel Meyrick, is an allusion to the advancing and retrograde movements of the English army at Boulogne.

Crustaceans, indeed, are curiously frequent. “The lob-

* “Of Iceland to write is little need, save of stock-fish” (Hakluyt).

ster, as an enemy to serpents, was," says Moule, "sometimes used as an emblem of temperance, and two lobsters fighting as an emblem of sedition." The union of a lobster with the human form is an impresa of very old date, but the families on the Continent that bear this crustacean for a badge probably refer it back to no earlier times than the chivalric days when knights went forth to fight in that armour of overlapping plates which were called "ecrivisses." Prawns and shrimps are among the heraldic bearings of the Crafordes and Atseas of Kent; and the crayfish, also an English crest, was the badge of the Prince of Orange, and betrayed that warrior to imprisonment when he had hoped to escape identification among a heap of the killed after the battle of St. Aubin du Cormier. The crab frequently recurs—the golden crabs of the Scropes, Danbys, and Bythesees being instances. The turtle is not common, there being perhaps only six in English heraldry; and among the miscellanea of the sea are found the starfish, sea-urchins (*Echinidæ*), and numerous shellfish.

A scallop on a shield shows, or should show, that an ancestor had been in the Crusades, as it was the cognizance of St. James, and after him of all who fought against the infidels, and so of all pious pilgrims. The badge of the Order of St. James of Spain is a sword with a cross handle and a scallop on the pommel. The same shell forms the badge and collar of the Order of St. James in Holland, and Saint Louis instituted the "Order of the Ship and Escallop" for the decoration of the nobility who accompanied him to the Holy Land. The collar of the Order of St. Michael, founded by Louis XI., was garnished with golden scallops. The cockle, whelk, and several of the genera *Turbo* and *Cypræa* found among modern crests

and shields, date back to the palmy days of Phœnicia, when Tyre and other cities of the Mediterranean stamped their medals and coins with them. The nautilus, a favourite emblem in Southern Europe, bears in the badge of the Affidati Academy the motto, "Safe above and below," in allusion to the old-world description of its habits.

"But among the greatest wonders of nature is that fish which of some is called nautilus, of others pompilos. This fish, for to come aloft above the water turneth upon his backe, and raiseth or heaveth himselfe up by little and little ; and to the end he might swim with more ease as disburdened of a sinke, he dischargeth all the water within him at a pipe. After this, turning up his two foremost clawes, or armes, hee displaieth and stretcheth out betweene them a membrane or skin of a wonderful thinnesse ; this serveth him instead of a saile in the aire above water. With the rest of his armes or clawes he roweth and laboureth under water, and with his taile in the mids, he directeth his course, and steereth as it were with an helme. Thus holdeth he on, and maketh way in the sca, with a faire shew of a foist or galley under saile. Now if he be afraid of anything in the way, hee makes no more adoe but draweth in water to baillise his bodie, and so plungeth himselfe downe, and sinketh to the bottom."

But, of course, the most celebrated and popular of shell crests and devices was the pearl-oyster. Charged with its precious freight, it appears in a hundred forms, the legend always repeating one or other of the curious and beautiful fancies of antiquity. Every royal Margaret, by right of name, claimed the precious thing as her emblem ; princes and nobles bore it on their impresas, and the coronets of nobility take the degrees of rank from the pearls upon them.

In German heraldry, fish as devices are even more common, and their positions on the shields are infinitely more varied than in the armorial bearings of England. In France, also, where heraldry is more generally popular than in Britain, there is a striking fertility in design, and

the fish form is very frequent. Among the curiosities of foreign heraldry must certainly be accounted the fish skeletons which we find as baronial crests on the Continent. That Amsterdam is built on herring bones is an old saying ; but why Bavaria, Franconia, and Switzerland should adopt such a singular, such a beggarly, badge, is a phenomenon still requiring explanation.

On signboards the fish is a figure of common recurrence. The trout is a favourite angler's cognizance, and "the golden perch," the gudgeon, the salmon, and the pike are among the individual fishes that swing before the doors of riverside inns. The Elephant and Fish—unless fish means "dragon," which in tradition is the hereditary foe of the elephant—is a device that puzzles the herald ; nor is the Cock and Dolphin more obvious in its significance. The dolphin, of course, is everywhere, in all kinds of curious combinations, and passing through as large a range of colours as the fabled creature when dying.

Moulé only glances at piscine heraldry in his admirable work. "Frequently," he says, "the sign of the fish is seen without any further specification ; in this case it is probably meant for the dolphin, which is the signboard fish *par excellence*. The fish sign is a very common public-house decoration at the present day, probably for the same reason as the swan, because he is fond of liquor—nay, to such an extent goes his reputation for intemperance, that to 'drink like a fish' is a quality of no small excellence with publicans." In Carlisle, however, there are two signs of the Fish and Dolphin, a rather puzzling combination, unless it has reference to the dolphin's chase after the shoal of small fishes. The Fish and Bell, Soho, may either allude to a well-known anecdote of a certain numskull, who, when he caught a fish which he desired to keep for

dinner on some future occasion, put it back into the river with a bell round its neck, so that he should be able to know its whereabouts the moment he wanted it ; or it may be the usual bell added in honour of the bell-ringers. A quaint variety of this sign is the Bell and Mackerel, in the Mile End Road. The Three Fishes was a favourite device in the Middle Ages, crossing or interpenetrating each other in such a manner that the head of one fish was at the tail of another.

“ The Three Herrings, the sign of James Moxton, a bookseller in the Strand, near York House, in 1675, is evidently but another name for the Three Fishes ; at the present day it is the sign of an ale-house in Bell Yard, Temple Bar. Several taverns with this sign are mentioned in the French tales and plays of the seventeenth century. Two of them seem to have been very celebrated, one in the Faubourg St. Marceau, the other near the Palais de Justice. This last one seems to have been particularly famous, for it is named as a rival to the celebrated Pomme de Pin. The Fish and Quart, at Leicester, must be passed by in silence, as the combination cannot immediately be accounted for. Were it in France a solution would be easier, for in French slang a ‘poisson,’ or fish, means a small measure of wine. The Fish and Eels at Roydon, in Essex, the Fish and Kettle, Southampton, and the White Bait, Bristol, all tell their own tale, and need no comment. The Salmon is seen occasionally near places where it is caught. The Salmon and Ball is the well-known ball of the silk-mercers in former times added to the sign of the salmon ; whilst the Salmon and Compasses is the masonic emblem that is added to the sign. Both these occur in more than one instance in London.”

CHAPTER VII.

FISHES IN MODERN FOLK-LORE.

Survival of Zoolatry in Modern Folk-lore—Mermaid Superstitions—
Water-horses and Water-bulls—How Fishes got their Shapes—
Feminine influences Sinister—Parsons of ill-omen to Fishermen
—Fish annoyed by Bells—Fish-prognostications—As Weather-
prophets—Fishes in Medicine—Superstitions as to Origin of
certain Fishes.

FACE to face with the living myths and superstitions of the present, one feels, as I think it is Max Müller says, like a geologist who in a country ramble should suddenly find himself confronted with a herd of megatheria. For the world has not all grown old together, and there are still in existence to-day people who have not aged a bit in their intelligence since the "once-upon-a-time" period which we—the precocious youngsters and the wise-acres of the human family—only now retain as the commencement of children's fairy-tales. We ourselves, for instance, have long ago learned to look down as from a superior pedestal upon the beast-world, and loftily bespeak sympathy for the "poor dumb brute." But it is not so all the world over; for there are nations breathing the same air with us, sharing the same sun and moon, launching boats on the same seas, who still to-day, in the nineteenth century, in the age of electricity, speak respectfully of beasts, birds, and fishes as of equals. There are actually some also who still look up to and

reverence the things in fur, feathers, and scales as their superiors.

The Red Indian calls them his "younger brothers," and though compelled to eat them, he does so with apologies. He excuses himself for the painful necessity of making a meal off his "dear cousin"; deprecates the anger of the eaten thing's relations by formulas of propitiation, and hopes by posthumous ceremonials of respect to the skull and bones and skin, to condone the consumption of the meat and fat. This is all, no doubt, grótesque enough, but it is very much like meeting a megatherium in a country lane. One begins to feel the clothes slipping off one's back. The fingers itch to chip flints. Time seems to wheel backwards through the intervening cycles, and we are again the contemporaries of primitive man. In this savage theology, this zoolatry, that sees divinity itself—or emanations from divinities, or symbols of divinity—in the beast-world, the fishes afford a very interesting study. Throughout the Pacific, modern folk-lore is still the same clan-animal worship that I have referred to in Chapter III. The fish are lords of the sea. In the Tongan, Fiji, and other groups of islands, reverence for the whale and shark, eel and sun-fish, and many another creature of the waters, influences the daily life of the people, controls their habits, and colours their thought. Among tutelary spirits—the "aitu" of the Samoans, the "atua" of New Zealand—we find all the larger and more dangerous fishes; and just as in the Far West we find fish among the medicine-animals and the totems of the Red Man, so in South Africa we have "The Fishes" tribe of the Bechuana, the Batlapi; and among the tutelary "Kobongs" of the Australian savage are numerous fish. And with these, their habits, predilections, and potencies, the modern folk-lore of these

people solely concerns itself. They think and live, in fact, in the old world of zoological myths.

To take the Polynesians only in illustration of the rest : fish and fishing are everything with them—their religion, their history, their art, their poetry, their daily life. They have fish gods, fish feasts, fish sacraments. In every-day matters, all quarrels arise out of fishing affairs, and every narrative of an incident commences “when out fishing.” Similes of beauty and personal grace are drawn from fish. They use sea produce as currency, and divide off the water surface into individual holdings with the accuracy of land surveys. For are they not, after all, the descendants of fish themselves? and is not the earth, a gift of the sea, a fish also? One of their original gods was out fishing, and letting a hook—made out of a bone of “an ancestress” (fish-hooks are still made out of fish bones)—over the boat-side, hooked the earth, and drew it up to the surface. In the true spirit of zoolatry he returned at once to sacrifice a portion, but while he was away, his companions, unable to restrain their appetites, began eating the fish, which flopped and flung itself about. This accounts for the earth being so hilly and irregular. Had the hungry ones duly waited till the propitiatory “first-lings” had been offered, the earth would probably have been smooth and flat (as all savages would like it to be), for the fish would have understood that though it was being eaten, the proper formalities of respect had been observed, and would have placidly accepted the apologetic offering.

One of the most important incidents of their folk-lore is that which tells us how Kae stole a whale. Not that this cetacean lends itself very handily to the industry of the pickpocket, or seems a suitable article for stealing.

But then Kae was a magician. Moreover, the whale was a tame one. It belonged to the god Tinirau, who, when visitors dropped in upon him, would occasionally hand round bits of his pet whale, as our forefathers used to hand round comfits, or, as everywhere in the East, the tray still circulates among callers with the complimentary cardamum or clove. And one day Kae whistled the whale away from its master, and ate it up in the seclusion of his own parlour. But Tinirau guessed where his pet had gone, and told his wife, and she, with some of her lady friends, went and kidnapped the magician, and brought him back in bonds to Tinirau, who very properly put him to death, and gave him "to the sharks and whales" to eat.

In another direction, the shapes of fishes, the Polynesians have a lively mythological imagination. Why some fish are flat is thus explained: Ina, the daughter of Vaitooringa and Ngaetna, attempted to flee to the Sacred Isle. She had asked one fish after another to bear her thither, but they were unable to sustain such a burden, and upset her in shallow water. She at last tried the sole, and was successfully borne to the edge of the breakers. Here again she was unshipped, and the heavenly maid (*tantæne animis*!) was so provoked that she stamped on the head of the unfortunate fish, and with such energy that the underneath eye was squeezed through to the upper side! "Hence the sole is now obliged to swim flat, with one side of its face having no eye." But the day's work was by no means over, for Ina now summoned the shark, and succeeded in reaching the Sacred Island. Feeling thirsty during the voyage, Ina cracked a cocoa-nut on the shark's forehead, and this accounts for the bump now found on the forehead of all sharks, and called Ina's bump.

Now, though all this is as old as the hills, and older

perhaps than some, it is nevertheless modern folk-lore, and, though of course in a modified form, to suit other circumstances and conditions, is the prototype of fishing folk-lore all the world over. Away up among the icebergs live people as truly ichthyophagous as any that Pliny knew of, and to whom a single species of fish is as all-important as the palm-tree to South Sea Islanders, or the banana to central Africa. They look upon the land as a pensioner of the sea, as indeed they well may, seeing that not only they themselves, but their cattle and dogs, live upon the produce of the water. Their coasts and rocks are the home and haunts of water-powers, whom they propitiate by deference; and the shapes of fish are explained by superstitious traditions as incredible as the incidents of Polynesian theology. But let us come nearer home. Ask the Scandinavian why salmon are red and have such fine tails, and you will be told that the ruddy colour of the flesh is due to the fact that the gods, when heaven was on fire, threw the flames into the sea, and the salmon swallowed them (indeed this fish is accepted by some mythologists as symbolizing fire); and the delicacy of the tail of the fish is explained to the Norseman by Loki having turned himself into a salmon when the angered gods pursued him. He would have escaped if Thor had not caught him by the tail, "and this is the reason why salmon have had their tails so fine and thin ever since." Or go even to Yorkshire, and ask why the haddock has those dark marks on its shoulders. You will be told either the old story about St. Peter, or else that when the devil, in order to bother the fishermen, was building Filey Bridge, he dropped his hammer into the sea. A haddock tried to make off with it, but Satan was too quick for the fish, and gave it such a pinch that no haddock has ever forgotten

it. And why has the stickleback to build a nest? Because during the Deluge it pulled the tow out of the bilge-hole of the Ark, and if it had not been for the hedgehog who plugged up the leak with its own body, Noah would have had an exciting time of it, baling out his boat.

Those who read these pages do not probably believe in mermaids, or in the sea-cattle which they have helped to herd ever since the days of Proteus, and long before that. Yet the belief in the mermaid is a contemporary fact, and in the British Isles too. From the Shetland Isles to Cornwall, and in the Sister-isle as well, the coast is still the resort of kelpy, and nix, and water-sprite; while sea-bulls—lineal descendants of those sea-calves with which Neptune terrified the hostile charioteer—and sea-horses, such as whirled the car of Poseidon over the waves he ruled, still come out on dry land in the Isle of Man and the Hebrides, to the great annoyance of those who own land-cattle. And what are these sea-things but the principalities, and powers, and possessions over which the Morskoi Tsar, the Water-King of Russian folk-tale, lineal descendant of Neptune, holds the sceptre? In Ralston's delightful pages we see him, a somewhat shadowy form but a patriarchal monarch, living in subaqueous halls of light and splendour, whence he emerges at times to seize a human victim. It is generally a boy whom he gets into his power, and who eventually obtains the hand of one of his daughters, and escapes with her to the upper world. And so through the cycle of the sea-trow myth we come to our own coasts and our own day, and in the land of Thule find the old, old fancy still in all its unmarred charm. Along the sandy margin of the voes of Uist the beautiful maiden still comes up from her home beneath the waves to enjoy the sunshine, and if the tourist should chance to see

a sealskin or other "ham" lying on the rock, he ought at once to seize it, for there will come to claim it bye-and-bye the pretty Nereid to whom it belongs, and who, without it, cannot return to her caves and her friends. He must be careful, of course, not to jump rashly to conclusions, and carry off a bather's clothes, or some fisherman's oilskin laid down for a moment by the owner, who has perhaps just gone round the corner. But if he finds the real thing, it will all happen just as I have said, and the maiden will beg very prettily for her skin, and if he refuses it she will accept her destiny, put her hand in his, and if he does not mind being seen walking along a turnpike road with a girl in the garb of Eve, he may lead her back into the town and straight to the altar of the little church that overlooks the billowy sea where his bride's friends live—but which she, so long as he hides her skin from her, will never be able to remember again. But sometimes it happens that husbands of mermaids, grown careless by the lapse of time, leave the "ham" (as the sea-nymph's fish-tail covering is called) lying about in an attic or an unlocked box, and then, alas! all is grief for the motherless bairns. For one unlucky day the wife finds her old garment, and there comes upon her the sudden recollection of another world which she once lived in, and a longing—that she cannot understand, and still less resist—to put on the familiar thing overtakes her. She yields, and lo! in a twinkling, she has forgotten all her earth-life, her husband's love, and her children, and hurries away straight to the sea, and is gone for ever.

So "gone back to the sea" is a pretty and decorous euphemism for "run away from home."

To refuse to marry a mermaid, when in your power, is what no man should do who has any regard for his family.

For not only will he die mad himself, but he will bequeath insanity to his heirs for ever. Remember Duke Magnus.

So much, then, for modern mermaids and their kith and kin. Their cattle include both water-horses and water-bulls. These are still seen on our coasts. The former is a harmless and sociable beast that grazes with common cattle, but if any attempt at capture is made, it at once rushes over the cliffs into the sea. The water-bull is more troublesome, does much mischief, and even kills its terrestrial equivalents in combat. Before it disappears under the water it always gives a defiant bellow. By this you may always know a water-bull.

The world therefore is still young ; and coming to religious superstitions, we find the vestiges of an ancient fish-cultus, in vigorous existence among our own fishing population. Some of the charms, incantations, and propitiatory offerings are very significant, and when the interpreter arises—a Tylor, or Lyell, or Ralston—large inductions of principle will be drawn from them and the great code of superstitious observances which influence both the social and industrial lives of these people, be shown in its breadth and length to be the survival of the zoolatry that still flourishes elsewhere in pristine force. At present popular superstition is a mass of unexplained items, but all the same they bring us, so to speak, face to face with the megatherium. Thus, ten years ago a herring-fisher was brought to a police court for repeatedly ill-using his wife. He admitted the conduct, but explained it was done, not from ill-will towards his wife, but to attract the herrings !

Is it due to the grudge, dating back to Paradise, and the day when, as the negro preacher said, “dat woman robbed de orchard,” that fishermen consider feminine influences so sinister ?

In the Isle of Skye, if a woman crosses the water during the fishing, the luck is doomed. At Flamborough, if a woman happens to enter a cottage when the men are preparing their lines, she is not allowed to depart until she has knelt down and repeated the Lord's Prayer. In Lapland, the fishermen avoid spreading their captured fish on that part of the shore frequented by the women, as the next expedition would be a failure. In very many parts of our coast it is most unlucky for a woman to walk over the nets or any of the fishing-tackle, although they take a very active part in collecting bait.

Burn the teeth of fish you catch, or your luck will be bad next day—pins found in church make good fish-hooks—a quarrel on the beach, if blood be drawn, will drive the herring from the coast for the rest of the season (Scotch)—stolen tackle is lucky (Swedish)—herrings caten on New Year's Day bring luck all the twelvemonth through (N. German).

Flamborough, by the way, is conspicuous for the tenacity with which it has preserved superstitions. As late as three years ago the fishermen would not put to sea if any one mentioned a pig when they were baiting their lines. In Scotland the salmon is equally unmentionable, and is only obliquely alluded to by a circumlocution. It is called *So-and-So's fish*. As being somehow connected with the powers of evil, it often receives for a pseudonym the name of the tax-collector of the nearest village.

The days to be avoided or selected for fishing enterprises are religiously observed. But the fisherman's religion is not always that of the Church, as, for instance, on the coast of Lancashire, where the custom is to set sail on the Sunday. A clergyman of the town once prayed against this breach

of the Sabbath, as he called it, but to neutralise his prayers the fishermen made a small image of rags, and piously burnt the parson in effigy.

At Buckie, not long since, the fishermen dressed up a cooper fantastically, his bright flannel shirt bestuck with burs, and carried him in procession through the town in a hand-barrow. This was done to "bring better luck" to the fishing. It happened, too, in a village where there are no fewer than nine churches and chapels of various kinds, and thirteen schools. Now, whence arose these ludicrous practices and credulities? And how came "the parson" to be a personage of ill-omen to so many fishermen? His influences are hardly less adverse than those of women, and the practices which I have noted as connected with the ill-omen of feminine interference apply also to the clergy. The herring all left one part of the Irish coast because they heard the new parson say he was going to tithe the fishery; and in Lapland and on the coasts thereof fish need never be looked for where a church is in sight. The Finns make the sign of the cross when they catch certain species of flat fish, and the Irish will not eat the skate (sometimes called the maid), because it is supposed to bear a very questionable resemblance to some of the grotesque mediæval delineations of the Virgin Mary.

The avoidance of the neighbourhood of churches referred to above finds some illustration in the fisherman's belief in the great quickness of the hearing of fishes. In Sweden, for instance, the church bells are not rung during the bream season, lest the fish should take fright; and where the pilchard is fished, the people are no less careful of their sensitiveness to sound. From this half-mystic belief in the sympathies of fishes has no doubt sprung the idea

that they foretell the death of their owner by fighting among themselves in their fish-ponds. Oliver Cromwell's death was "foretold" by fish, and also that of Henry II.

As barometers and weather prophets generally, fish are of as much interest to the fisherman as birds, beasts, and insects are to the man of woodcraft, the trapper or the forester, and some of these traditions of prognostication are founded upon the experiences of many generations. Thus Wellsford, in his '*Secrets of Nature*,' refers to several which are of great antiquity, and of which the following are of interest, if only as a sample of the sea-folks' weather-lore :—

"Porpoises, or sea-hogs, when observed to sport and chase one another about ships, expect then some stormy weather. Dolphins, in fair and calm weather, pursuing one another as one of their waterish pastimes, foreshow wind, and from that part whence they fetch their frisks ; but if they play thus when the seas are rough and troubled, it is a sign of fair and calm weather to ensue. Cuttles, with their many legs, swimming on the top of the water, and striving to be above the waves, do presage a storm. Sea-urchins thrusting themselves into mud, or striving to cover their bodies with sand, foreshow a storm. Cockles, and most shell-fish, are observed, against a tempest, to have gravel sticking hard into their shells, as a providence of nature to stay or poise themselves, and to help weigh them down if raised from the bottom by surges. Fishes in general, both in salt and fresh waters, are observed to sport most, and bite more eagerly, against rain than at any other time."

When they feel an earthquake, the Malagassies say "the whales are turning over," or "the whales are bathing their children." The serpent or dragon turning over and causing

an earthquake is a widely-spread myth, and the whale of ancient astronomy is really a sea-dragon.

In medicine, fishes filled an absurdly large space, nearly every species being, at one time or another, held a cure for some impossible ailment. Shark's teeth, rubbed on the gums, helped children speedily through dentition. The liver of the *Murœna* cured poisonous bites. The eyes of pike, powdered, were wonderful in their effects—so said the Duchess of Portland of merry memory. Petted as the lamprey once was by Rome, its supposed affinity to the fabulous remora of the ancients has earned it the reputation of being a thing of ill-omen. Yet its fat removed small-pox scars. Fever is cured (in Abyssinia) with an electric eel, and in Wiltshire with a common eel. Rheumatism yields, if you cannot procure the hand of a drowned man, to a rubbing with red-herrings; cramp (in Ulster and N. Scotland) to an application of fresh eel-skin; toothache (in N. E. Scotland) can be got rid of by carrying about the person a piece of a dog-fish, the fish being returned alive to the water after the excision; a sprain is cured (in Ulster) with eel-skin; deafness by powder of eel's liver; jaundice by applying a split tench to the soles of the feet (Yorkshire), but you must not forget to bury the tench when it is done with; hæmorrhage can be stopped with the brain of the same fish; cancer needs only a crab tied on to the spot to disappear; whooping-cough can always be banished by putting a live fish into the child's mouth.* This tradition is found, not only over

* An old fisherman, formerly well known at the Foye, Keswick, once caught a fish, which he put into the mouth of a child suffering from whooping-cough. He then replaced the fish in the water. He affirmed that the fish gave the complaint to the rest of its kind, as was evident from the fact that they came to the top to cough!

a large area of Europe, but also in America. A correspondent of *Notes and Queries* gives an account of a similar practice in America. "One morning, during the fall of the year 1875," he writes, "I was wandering along the banks of the Schuylkill river, when a young woman, carrying a child two years old, approached two anglers, and asked one of them for a fish he had caught. Receiving it, she seated herself on the bank, deliberately opening the child's mouth, and, thrusting in the head of the fish, held it there, despite the child's struggles, for the space of a minute or more. She then threw it into the river." A turtle is a regular medicine chest. "The stone from its eye" is a specific for ophthalmia; its legs will, by simple application, cure varicose veins; its shell, powdered up with some of its liver, affords an antidote to various poisons. But even in this aspect alone, the medicinal fish-lore is far too vast for more than this meagre recognition here.

Of the origin of fishes, folk-lore is full of information of its own kind. That birds were once fish I have already noticed, and now that the palæontologists are agreed that the Iguanodon, that mighty eft, walked like a bird on two legs "in his oolitic pride and his bloom," the French tradition may help forward the derivation of the birds from the fishes through the great sea-lizards.

Eels are to be accounted for in various ways. When the Brittany fishermen happen to catch the "lotte" they throw them back into the water, as they are supposed to turn into eels. In England they are supposed (as in Yorkshire) to be bred from dew in the months of May and June, or (as in Derbyshire) from the hairs of horses or kine which drop into cart-ruts, or into drinking-troughs and springs, and there quicken after rain. The origin of this belief is

of course obvious to those who have seen the hair-worm in fresh water. Soles, so the French say, are bred from prawns.

But, as I have said, the time for reading the true significances of these local traditions has not yet come. Folklore is still waiting for its interpreters.

APPENDIX.



A SEA-DREAM.

I HAD to go on business the other evening, after the regular hours, to the Fisheries Exhibition. The public, duly informed by placards that "the Exhibition will close to-day at seven o'clock," had already ebbed out of the buildings, and, trickling away by a thousand rills, had disappeared into its hidden springs in the suburbs. The buffets were desolate and the sections a waste. Here and there a care-taker, with a scarlet badge upon his forehead, flitted through the gathering gloom, tapping and tinkering at the woodwork like some human woodpecker. Here and there an "executive," like some black-beetle creature of the twilight, hurried across the silent sections, his arms laden with papers. Occasional lamps threw a spot here and there into sudden reliefs of light and shade, but between them stretched long dim spaces of twilight, an eerie sort of gloaming in which all the exhibits conspired together to look mysterious. The stands of the boats had disappeared from view, and yawl and smack and canoe seemed veritably afloat. A doorway opened somewhere, and the draught made the fishing nets hanging overhead wave and wobble, and in the deep-sea gloom that surrounded me I almost began to fear that perhaps some mistake had occurred; that I was really and truly at the bottom of the sea; when lo! turning round a rock, I found myself suddenly face to face with a gigantic specimen of the thresher shark. Turning to retreat, I found a bottle-nosed whale barring the doorway, while some fathom and a half above me a Japanese spider-crab, with all its legs outstretched, was hideously floating down through the dim space upon my hat.

I sped on, narrowly escaping collision with a great white whale that lay glimmering under the shadow of the rock-wall and passing directly under an enormous ribbon-fish—a slab-sided ghost of misery—that happened to be crossing overhead. But in a few steps more I was safe, and sitting down, regardless of spat, on an oyster-bed, I looked back into the ocean cave from which I had just escaped. (Poets, I observe, always do this, as it gives them an opportunity of describing

the same scene twice.) Sounds of water trickling here, plashings there, bubbling up from springs, or sluicing down the salmon ways, filled the air, and every now and again the ear could catch the sudden splash of pike meeting pike, or flurry of reconnoitring lobsters unexpectedly colliding. Far away in the distance were lights and what seemed to be human figures moving to and fro—Naiads and Tritons, no doubt, but strangely provided, for folk of that kind, with long-handled brooms and poke bonnets ; yet as I sat there watching them sweeping the sea floor and dusting the rocks, with the figures of the ocean-monsters looming up between me and them, I became aware that the great sea-things were talking together. The white whale had the floor, and it spoke in a dull, plaster-of-Paris voice, while ever and again the husky voices of narwhal and shark, sturgeon and sun-fish, speaking as one who was stuffed with hay might speak, murmured a subdued "House-of-Lords" applause.

I caught but little of what was said. So many trout were hatching in the ponds close by that it was difficult to follow the speaker. But the drift of the bulky one's utterances was unmistakable. It was grumbling consumedly. Whoever had heard of such nonsense as studying the manners and customs of whales and sharks on dry land? Why was not the Exhibition held off the Dogger Banks in thirty fathoms of good sea-water? *There* was the place to see things as they really were. The right way to study the manners and customs of a shark (and the white whale was quite sure the honourable exhibit from Otaheite would agree with him) was for the public to get into water out of their depth, for he had been informed that sharks always turned over on their backs before disposing of swimmers, and the public would thus have the opportunity of seeing both sides of the shark. At present they could only see one side, as the late Frank Buckland had cemented the other down to the blocks they lay on. Or how could any one arrive at an intelligent appreciation of his friend the sting-ray unless they met him at home? and what was the distinction between an electric cel and any other kind, if the former had no opportunity of illustrating the difference? "If the British public is so interested in us and our ways, why don't they come down and see us in our daily lives, let their children play with live lobsters in the cracks of the rocks, tickle the torpedo fish, and play bo-peep with an octopus? They would learn more in one afternoon intelligently devoted to romping with a spider-crab than in a whole life spent out of water." At least so the white whale thought—and all the other sea-things agreed with him.

Some of his remarks struck me as being both ingenious and just.

"The human beings," said he, "who have organised this exhibition live on dry land, on the uppermost crust of it. Even superficially measured, the extent of their habitation is far smaller than our own, while in depth there is not any possible comparison. And yet they have arranged this Exhibition solely according to their own divisions of the surface of the dry land, instead of according to the divisions of the sea. There appears to me in this arrangement an assumption of superiority that is hardly warranted under the circumstances. Supposing madrepores were to hold an exhibition, and to apportion off the world according to the different varieties of corals! Should we not laugh at them? Now, it happens that human beings cannot live under water. Indeed, it has come under my own experience that, if they remain beneath the surface even for a very inconsiderable time, they die from choking." (Some whitebait began snickering at this, and were suppressed.) "And the result is," continued the speaker, "that because they cannot live under water themselves, they look at everything from a dry-land point of view. Our marine industries, • such as sinking vessels or ramming them, the destruction of nets which gives occupation to such vast numbers amongst us, the consumption of fish-hooks and angling-gear generally, and so forth, are surveyed from a purely arbitrary terrestrial standpoint. Our marine mysteries again—what can these land-folk know of them? They are actually discussing among themselves whether our life is, or is not, 'silent, monotonous, and joyless!' They are disputing, believe me, as to whether there is such a thing as the sea-serpent or a cuttle-fish big enough to seize and founder a yacht under full sail! Now, if these human beings are sincere in their desire for information, why do they not let us organise a Grand Inter-elementary Fisheries Exhibition, and, in a proper spirit of justice, consent to see things for once from the sea-things' point of view? Think of the exhibits we could produce relating to lives and ships lost at sea in what they call an 'inexplicable' way. Why, our Polar Expedition relics alone would suffice to draw the whole world together to see. Who but ourselves • knows the true story of Arctic explorers that have disappeared? Let human beings, then, meet us fairly. Let them give over using the word 'fishy' in the opprobrious sense they now use it. Let them remember that the sea contains within it duplicates of nearly everything the earth contains, and a great deal besides that the earth cannot match; that though they speak of sea as an interruption to continents, *we* look upon continents as interruptions to sea—good sea run to land; and, remembering all this, let them recognise the true

majesty of the water-worlds, and arrange for holding the next Exhibition—at the bottom of the Atlantic Ocean.”

When he had finished speaking, the whole aquarium began firing off motions and amendments, and as the electric eels in their excitement began to get luminous, there was sufficient light to see the Irish-member kind of scene that ensued. Each fish had apparently moved that the Exhibition be immediately adjourned to its own particular habitat, and as the fresh-water creatures could not agree with the salt-water ones, they all began behaving like French Deputies. But the sea-things proved, on the vote which was ultimately taken, to be greatly in the majority, and though the fresh-water fish kept on rising to questions of privilege and points of order, and otherwise obstructing, the original motion, thanks to the assiduous hammering of the hammer-headed shark, was eventually carried.

It was to the effect that the next Great Interoceanic Fisheries Exhibition be held in the middle of the South Atlantic—with an ironical amendment by the white whale that if the site did not commend itself to the fresh-water fish, they might hold an Exhibition of their own in any “land-puddle” they liked. An executive committee was at once appointed, the Gulf Stream fixed upon as the central office, the Sea-Serpent invited to be present on the opening day, and the prizes scheduled. Gold and silver medals were awarded for the whales that sank the biggest schooner and drowned the most Dundee whalers respectively; the same for the sharks that swallowed the biggest man (if dressed in tarpaulins at the time an extra honourable mention); and the same for the sword-fishes that rammed their snouts deepest into ships. The list was a very long one—for every fish had a suggestion to make for its own benefit—and it closed with a copper badge for the oyster that could choke an American.

All seemed happily settled, and the meeting was relapsing into quiescence, when I became aware of a deputation of monsters in the aisle on my left. It was the sea-animals, who had been patiently waiting to see what arrangements would be made for them, and the silence was now broken by the voice of an aged walrus hoarsely inquiring whether he was a fish. A “movement,” as the French say, was at once apparent in the assembly, but no one replied. “For,” said the walrus, “it appears to me that, as I am fished for, I am a fish; and entitled, therefore, to be treated as such.” A chorus of approval broke from the narwhals, seals, sea-lions, manatees, and dugongs, and the argument finding no contradiction, it was agreed that some icebergs and other conveniences should be provided for the animals.

Upon this another difficulty arose, for the polar bear, who had walked over from the Terra Nuova annexe, gruffly put forward a claim on his own behalf. "This Exhibition," said he, "is not only for fishes but for fishers as well; and though I should never think of asking any one to call me a fish, I am entitled to be called a fisherman." The outrageous bad taste of this aroused the indignation of the whole assembly, and calls for Captain Gossett resounded through the dim aisles. But the bear persisted that he had a right to take his place in any Fisheries Exhibition that might be held, and that the rights of his constituents deserved as much respect as those of any other community represented in the House. But the fish would not hear of it, and after what is called "a disgraceful scene," the sea-lions were deputed to chuck-out the polar bear—which they did.

I followed the party out of the building, and when I had seen the polar bear—still grumbling immensely and threatening public demonstrations when he got back to Greenland—balanced in his old place on the top of his pyramid in the Terra Nuova annexe, and the sea-lions on guard all round him, I turned back. But whether I missed my road, or whether the fish had had the doors shut, I could not find my way back into the convention. So I went home.

PHIL ROBINSON.

ANGLING CLUBS
AND
PRESERVATION SOCIETIES
OF
LONDON AND THE PROVINCES.

BY
J. P. WHEELDON,
LATE ANGLING EDITOR OF 'BELL'S LIFE.'

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THE

ANGLING CLUBS AND PRESERVATION SOCIETIES

OF LONDON AND THE PROVINCES.

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INTRODUCTION.

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IN writing this handbook it was my original intention to give something like a short history of the formation and present position of some, at any rate, of the chief Angling Societies of the metropolis. Considering that there are certainly over 150 of these societies in London alone, I well knew that I had set myself no light task. Mapping the matter over in my own mind, I came to the conclusion that the only course for me to adopt was to seek the co-operation of the societies themselves, asking through their various secretaries for information as to their origin, and also what, if any, good work they were doing in the present. With this view a letter was sent to the secretaries of the various metropolitan clubs, apprising them of my design and intention. I have to thank a small proportion of these gentlemen, and I regret to say a very small one, for the courtesy of a reply. The larger number evidently considered the matter beneath their valuable notice, and so ignored it altogether. The situation hardly requires further comment.

With regard to the provincial societies, the line adopted has been entirely different—not in so far as I personally was concerned, because the same letter was addressed to each and all, but in the matter of politeness and courteous consideration towards myself. The result leaves me little room for doubt that the gentlenesses of modern society are cultivated far more abroad than they are at home. Many gentlemen have taken considerable trouble in affording me especially valuable information; to all such I tender my warmest and heartiest thanks—not so much perhaps for the knowledge conveyed in their letters, as for the kindly sentiments which accompanied it.

Thus much by way of introduction. For the reason stated, I regret very much that my little book does not contain fuller and more concise information. I leave it, however, to the tender mercies of my readers.

It would probably be very difficult for the angler of to-day to realise what the Thames and the Lea were like some fifty years ago. Those are the two great home rivers, centres of all the persevering efforts made day by day, week by week, and month after month, by the London angler, whose great aim it is to catch a big fish of some sort—it matters very little what—and have his name go down to posterity, decked with emblematic laurels as the “champion” in such and such a class of fishing. Such happy fate may be preserved for all time—until at any rate the record is beaten—upon the tablets of fame connected with some small local angling club.

But fifty years ago—and what a paradise for sportsmen the Thames must have been then!—swans were kept

within bounds, and at that time it was not necessary to employ bands of men, as it is in the present day, to drive these handsome but terribly destructive birds from the line of weed-fringed roots dependent from stubbly pollards lining the bank, and upon which spawning perch have deposited their riband-like strings of ova, nor from "the hills" in the weir streams, where the great and bonny mother trout has frequented during that time when she was simply obeying Nature's urgent laws.

Steam launches, probably the greatest of all great curses to him who, following the example of a writer of other days, would fain—

"Live harmlessly, and by the brink
Of Thames or Avon have a dwelling place,
Where I may see my quill or cork down sink
With eager bite of perch or bleak or dace,
And on the world and my Creator think,

were then absolutely unknown. In any event, there were none of those thrice detestable "puffers," with silent engines and dull moaning whistle, which daily and hourly tear through the water at the rate of 12 to 20 miles an hour, doing direful and deadly injury every yard they go. It may be said that this language is excessive in its strength, and overstrained in its application. Not a whit, take my word for it. I have seen more damage done to the ova of spawning fish in one season, and particularly perch and pike, by the everlasting swash and wash of these deadly pests, more—aye, far more than an army of poachers and fishermen could do in five years, had they even combined their forces, without absolutely netting the river wholesale every day, and harried every fish to death that came within their ken.

At the first glance this would seem to be an overwhelming

statement, hastily and rashly made. One moment's consideration will suffice to impress any thoughtful man's mind with an assurance of its truth. A pike wirer, it is true, may kill a female fish, ripe and full of ova, and hence many thousands of future pike are lost to the fair fisher. But where he kills one or two fish without detection, the steam launches are perpetually and everlastingly ploughing through the water, not only washing away the ova deposited upon the weeds and sheltering roots, but destroying thousands upon thousands of tiny just-hatched fry, which would otherwise have probably grown up, and made in time mature fish, the source and foundation of good sport to the fair fishermen.

In those far-off days of the past there were such delightful and fishful nooks as one misses nowadays. Comparatively speaking the Thames was a great stretch of maiden water, where the unharried fish dwelt in a sense of the most perfect security. Their chief enemy was then, probably, the village poacher, with his rude, yet none the less dangerous, ash pole and bit of dangling copper wire. Lazy and idle—as indeed some few perhaps of the village loungers of to-day may be—this worthy would stroll down to the river side, where mayhap, amongst bonny sweet-smelling hay-fields lined with meadow-sweet, and where glorious purple loosestrife bounds the river's marge, he met not a solitary living soul the whole summer's day. Here he would pry about, until he might haply descry, basking amongst the water weeds, a big pike, with the tip of his nose and tail clear of the water, or the dorsal fin of a great lumbering carp. Then the fatal noose would be brought into play, and towards night, when reeling home from "The Haymakers," the gloriously happy fellow might possibly reflect, and withal possessed of an infinite sense of

satisfaction, that he was a very lucky dog indeed to be able to get such a skinful of good old ale with so little real trouble.

But the injury done to the fisheries of a river in such a case—and examples of it are now happily almost extinct—is increased a millionfold every year by that wrought by the terrible rate at which traffic up and down the stream is permitted. I have seen, for instance, the wave raised by a fast launch or heavy steam-tug rushing along the bank nearly a yard high, sweep up some little inland bay where the water perhaps shallowed from a foot or so at its mouth to only a few inches in depth in its interior. That little bay, and all such like it, is full to this day, I hope, of tiny mites of baby fish. I have seen, as I have said, the wave sweep across it, and as it receded it left hundreds, possibly thousands, of little fish to die amongst the pebbles and rank grass growing along the shore. Talk about the destruction effected by a pair of otters, talk about the war waged by the idle village lout upon the finny inhabitants of a river—why, the argument falls flat and becomes both baseless and ridiculous as opposed to the terrible havoc wreaked by these puffing pests, determined enemies as they are to good sport, peace, and quietude.

It may be in the recollection of some few of the readers of this little book that I have for years waged war, with both voice and pen, for the suppression of what I cannot help seeing is the chief enemy to the fisheries of the river. My work has borne at least some little fruit, inasmuch as a Bill for the better regulation of steam traffic upon the river has gone through a select Committee of the Commons, and is now before the House of Lords; and all good anglers will, I am convinced, say amen to my prayer for its

success. But suppose it passes and becomes law, as I earnestly hope it may do, it will still be an abortive and useless measure, unless the "Angling Clubs of London"—and here I strike the key-note of my book—help it by their united support and assistance. It is useless for Tom to wait while Jack or Harry strikes, in the event of any outrage upon propriety. Tom, being the spectator of an abuse of the existing law, should strike at once, and then perhaps others will follow his example, so that in the event of any breach of law in the future, the result, affecting, recollect, the angler's dearest and nearest interests in connection with his sport, rests with the angler himself. As there are twenty "clubmen" fishing the Thames to one unassociated with any such body, this warning, and it is a very grave one, is addressed particularly to them.

Practically, I think, or at any rate to any great extent, poaching on the fisheries of the Thames is very nearly extinct. Now and again there is a raid made, it is true, by some of those determined spirits always to be found in villages and large towns, and who would, every man-Jack of them, infinitely prefer one poached hare or pheasant, obtained at the price of a little adventure and devilry, to a brace got by fair means; but I hardly fancy that the extent of the mischief done is very great. The reason lies in the fact that a very large proportion of the river is now protected either by the keepers and officers of the Thames Angling Preservation Society or by the officials of some one or other of the local associations, all of whom are in reality offshoots from the parent-tree just named. There can be little doubt that the growth of the angling clubs of London has been largely fostered by the efforts made by the "Thames Angling Preservation Society" in the conservation and preservation of its fisheries. In tracing,

therefore, an imperfect history of the growth of the angling clubs, due credit should be given to the leading Preservation body, which exercises such an important control over the interests of the great home river. It may therefore, at this point, be a fair opportunity for a short description of establishment and progress up to the present time.

The Thames Angling Preservation Society was, I believe, first established in the year 1838. Somewhere about that time, a report was certainly promulgated to the effect that "the Fisheries of the River Thames had of late afforded so little sport, owing to incessant poaching and the destruction of the young brood and spawn during the fence seasons, that it was almost useless to attempt angling in certain districts at all." Fortunately, that report found its way to a sympathetic quarter, and it occurred to those into whose hands it fell that if a proper representation of the facts were made to the Lord Mayor of London (then Sir John Cowan) he might probably be induced, in his official capacity as Conservator of the River Thames, to help those early pioneers of fish preservation in the course they were endeavouring to take for the good alike of anglers and the river itself. Acting upon this view, a meeting was convened on the 17th of March, 1838, and was afterwards held at the "Bell Inn," Hampton. It was attended by the following good anglers, most of whom, I am afraid, have gone to that shadowy bourne, from which no angler, however good he may have been, ever returns—Mr. Henry Jephson, Mr. C. C. Clarke, Mr. Henry Perkins, Mr. W. H. Whitebread, Mr. Edward Jesse, Mr. Richard Kerry, and Mr. David Crole. These gentlemen having met, fully discussed the important issues brought before them, and that meeting was the groundwork upon which the present important work of the Thames Angling Preservation Society was founded

They therefore resolved themselves into a Society for "the protection of fish from poachers;" and one of the earliest steps taken was the appointment of a staff of river-keepers, selected principally from amongst the professional fishermen who gained a livelihood upon the Thames. The valuable action of this small preservative body was from the outset fully recognised by the Lord Mayor, and warrants were then granted to the river-keepers to act as water-bailiffs, while certain bye-laws were framed for the better protection of the fisheries of the river. Under these bye-laws the position and power of the river-keepers is thus defined:—They are empowered "to enter any boat, vessel, or craft of any fisherman or dredgerman, or other person or persons fishing or taking fish or endeavouring to take fish, and there to search for, take and seize all spawn, fish, brood of fish, and unsizable, unwholesome, or unseasonable fish, and also all unlawful nets, engines, and instruments for taking or destroying fish as shall then be in any such boat, vessel, or craft in and upon the river, and to take and seize on shore or shores adjoining to the said river all such spawn, fish, and also all unlawful nets, engines, and instruments for taking and destroying fish as shall there be found."

The extent of water taken under control was from Richmond to the City Stone at Staines, and immediately efforts were made to preserve the various deeps in the course indicated, thus making them "harbours of refuge" for the fish. The position of such preserves may be shortly pointed out as follows.

Richmond.—The preserve is westward of the bridge to the Duke of Buccleuch's, 700 yards. Twickenham.—The preserve is the west end of lawn, Pope's Villa, to the ait, 400 yards. Kingston.—The preserve is from the Lower Malthouse at Hampton Wick to the east end of Mr. J. C.

Park's lawn at Teddington, including the back-water known as the Crolock, 1060 yards. Thames Ditton and Long Ditton.—The preserve is from Lord Henry Fitzgerald's, running eastwards, 512 yards. Hampton.—The preserve is from the west end of Garrick's Lawn, including the Tantling Bay, to the lower end pile below Moulsey Lock, 1514 yards. Sunbury.—The preserve is from the weir westward to the east end pile of breakwater, 683 yards. Walton.—The preserve is at the east end of Tankerville and west of Horse Bridge, called Walton Sale, 250 yards. Shepperton.—The preserve is, Upper Deep, 200 yards; Old Deep, east of the creek rails, 240 yards; Lower Deep, east of the drain, 200 yards. Weybridge.—The preserve is from the weir to Shepperton Lock, 830 yards. Chertsey.—The preserve is the weir to 80 yards eastward of the bridge, 445 yards. Laleham and Penton Hook.—The preserve at Penton Hook is from the guard piles eastward round the Hook to the east end of the lock. Staines.—The preserve is the City boundary stone to 210 yards eastward of the bridge.

From time to time these preserves have been rendered more efficient by the sinking of old punts, brick burrs, and by driving stakes into the river bed, as a protection against netting operations. The last of such established preserves was that at Kingston, which was made in the year 1857. Upon application being made to the Lord Mayor, the movement was opposed by some of the professional fishermen, but such opposition was overruled, and the following is a list of the obstacles sunk:—"Five old punts, two iron waggons, 7 feet 3 inches in length by 4 inches, and 2 feet 6 inches in height, open at one end; 450 stakes driven; six 2-horse loads of large brick burrs; twenty egg chests with tenter hooks; fifty large flint stones; ten tar-barrels, tenter-

hooked ; two large sugar casks, tenter-hooked ; two punt loads of old iron gas lamps and other useful things ; and three sacks of tin cuttings for the landing-places along the shore."

In December 1857 the Board of Thames Conservancy became invested with fuller powers in its government, and an application made by the Thames Angling Preservation Society for a continuance of the powers vested in their bailiffs or water-keepers was at once granted. The next step taken for the further preservation of the fisheries of the Thames was in 1869, when an application was made for the whole abolition of netting between Richmond Bridge and the City Stone at Staines. This was supported by the entire body of Thames fishermen, and in consequence of the Conservancy Board acceding to the application the following notice was inserted in several of the London papers :—

"Be it ordered and established that the 16th item of the rules, orders, and ordinances for the fisheries in the Thames and Medway, made on the 4th day of October, 1785, be repealed, and that henceforth no person shall use any net for the purpose of catching fish in the River Thames between Richmond Bridge and the 'City Stone' at Staines, except a small net for the purpose of taking bait only, of the following dimensions—namely, not exceeding 13 feet in circumference, and an angler's landing net, under penalty to forfeit and pay £5 for every such offence. The seal of the Conservators of the River Thames was this 23rd day of January, 1860, affixed by order."

But the most important work, after all, effected by the Thames Angling Preservation Society was perhaps the abolition of snatching and laying night lines. It is

absolutely impossible to overestimate the destruction effected amongst spawning fish, or to others flocking to certain places where a sewage discharge induced them to harbour, than was effected by the detestable and unsportsmanlike practice of snatching. The sewer at the foot of Richmond Bridge was a noted place where the so-called angler was in the habit of exercising his unworthy craft. The *modus operandi* was very much as follows: an angler—heaven save the mark!—perhaps pretended to be fishing for dace, and attached to his tackle he had a dozen stout hooks set at intervals on his line, some of them baited—others with not even that shallow pretence—with a fragmentary portion of worm. All day long these delightful gentry kept dropping a heavily shotted line into the swim, and instantly jerking it upwards again with a powerful stroke. Thus many a great carp has been impaled, many a lusty bream dragged *nolens volens* from his watery home. The same kind of thing was done openly and in broad daylight, along the parade at Kingston, and the operators pretended they were fishing—legitimately fishing! Now and again a bold sportsman, rendered hardy and brave with impunity, disdained to use the shallow artifice of the bit of worm at all, and boldly lowered amongst the gathering shoals of bream or dace a cruel implement of sport, consisting of a bunch of bare triangles weighted with a sinker. It may well be in the recollection of a great many disgusted spectators, even as the memory is likely to abide with me for all time, of the shameful and detestable scenes that were wont to be enacted day after day at many of the accessible weirs, when the dace were heading up. I have seen them slaughtered in scores, and scores of hundreds; and this little game went on day after day, for weeks. It was stopped at last, and high time too. The only wonder

I have, thinking back upon such scenes, is this : How was it that many a good angler, who must have shuddered with indignation at the cruel, shameful waste of life, the pain inflicted upon the hapless fish, escaped trial for manslaughter at the Old Bailey, consequent upon trying to effect the death by drowning of one or other of the manly and noble crew ? I know not.

As to the practice of laying night lines, its results were all too palpably apparent to him who reads by the wayside as he runs. Many and many a grand Thames trout, the pride and crown jewel of some deep reach, has met his death ignobly at the end of a night line, ostensibly laid for the capture of eels. Then it was that the lucky captor would knock his prize on the head, and straightway take it up to the village house of a well-to-do and worthy inhabitant, who had probably tried a round dozen of times to effect his capture legitimately. Some such scene and dialogue as this then followed :—

A trim and natty servant-maid appearing at the door, honest old Bill Boozler, the hard and horny-handed, who never told an untruth in his life, or pretended to bait a barbel swim when he had not had a worm near his premises for a month, rush basket in hand, thus addresses her :—

“Mornin', Mary, my dear. Why, Lard a mussy, what cheeks them is o' yourn, surelie. Redder 'n the best Ribson pippen as I ever seen. Lard, ef I'd only bin a younger man.”

“Go along with you ; a married man and all. You oughter bin ashamed o' yourself,” is naturally red-cheeked Mary's retort.

“Well, so 'tis, Mary. Mortal 'shamed of myself I is, and so I don't deceive you. Muster Fubsy in? But, theer, I needn't

arst. Aint them his brekfus' things agoin' in? Course they is; new laid heggs there is, which they're werry good at times, and a leetle bit o' bacon frezzled crisp. Tray bung, as the Frenchmen says, and now, Mary, my dear, will you be so good as to give Muster Fubsy ole Bill Boozler's compliments, and say he's sorry to say as that theer trout has a-come to a huntimely hend at larst."

The natty one, having delivered her message, is nearly upset by the anxious Fubsy, who rushes out, spectacles on nose, the *Times* in one hand, and loosely arrayed in his dressing-gown. He opens upon William at once.

"William—William Boozler, you don't mean to say that you've er—er—caught that trout, after all the number of times I've been out with you, and the pounds and pounds I've spent?"

"Suttenly not," cries the worthy William, with an air of mingled grief and astonishment. "No, sir, suttenly not. But this blessid mornin' as ever was, I'se a goin' down to Bunkin's Ait in the little skiff, to see about the cel barskits, and I hears a floppin' and prancin' about in my old punt—that one what the *Westa*, confound her! stoved in—and so I sculls across softly, thinkin' it was rats. Soap me never, marster, I was that knocked-a-cock as I could ha' drunk arf-a-pint o' ole ale quick, just as I could at this heer minnit, fur theer lay that theer loverlly trout, a nine-pounder ef he weighs a hounce, wi' just a kick and no more left in him; and I takes him in my two hands tenderly as ef I was a leffing a babby, and 'olds his 'ed up stream. But it worn't a mossel 'o use, he was stone gone; and I says to myself, I does, 'Bill, this punt is yourn'—which it is, cause why, my own brother's sister's husband built her, best pine deal and oak stretchers, which well it is beknown down at the bridge,

and at the ferry ; but, 'Bill,' says I, 'this trout ain't yourn, and for why, cause Muster Fubsy bin a fishin' wi' you, Bill, off and on, a matter of a score o' times, ole days and arf uns'—though I never was the man to arst for a ole day's pay for a arf un—'and that theer trout, Bill,' says I, 'is Muster Fubsy's fish by rights'; and so I brings him straight up to you, sir, and theer he lays—a beauty as he is—wi' spots on him as big as a crown piece, werry nigh."

"But, in the name of fate, William," cries Fubsy, carefully putting his spectacles on the bridge of his nose, "how did the trout get into your punt?"

"Chucked hisself in, sir—chucked hisself in, which it is well known they will do arter a bait, or else a leaping out o' the water arter a butterfly or what not, and so the pore creater hadn't the sense to chuck hisself back again, and theer he is. Blessed if I ain't as dry as bones, a-talking so much."

"William, you're a very worthy and honest fellow—a very worthy fellow indeed, William. There's a sovereign for you, and I'm much obliged to you, while Mary will draw you a jug of ale. Good morning, William. Good morning."

The end draws nigh. William at any time during that day may be discovered at the bar of the "Angler's Rest," where for the hundredth time, at least, he tells the story of "that theer trout a-chucking hisself high and dry into the old punt." The trout goes to Cooper, and when it comes home, at the expiration say, of six to twelve months, it may perhaps bear an inscription to this effect: "Thames Trout caught by A. J. Fubsy, spinning. Weight, nine pounds."

In my own opinion the abolition of night-lining is the

sole and only reason for the immense increase in late years of the stock of trout in the river.

The new by-laws as to snatching and night-lining were approved by Her Majesty at the Court of Balmoral on the 28th of October, 1879. They are as follows :

“Snatching of fish.—It shall not be lawful for any person to fish for, or to take, or attempt to take, any fish by using a wire, or snare, or hooks (baited or unbaited), or any other engine for the purpose of foul hooking, commonly called ‘snatching’ or snaring.”

“Night lines.—It shall not be lawful for any person to lay night hooks or night lines of any description whatever between the ‘City Stone’ at Staines and Kew Bridge ; and any person laying fixed lines of hooks by night or day (commonly called night lines), or taking, or attempting to take, eels or fish of any description by such means, shall be deemed as committing a breach of this by-law.”

The Thames Angling Preservation Society continues its jurisdiction as far as Staines, and at that point the first of the local associations for the preservation of the river commences its work. This is the Windsor and Eton Society, which is supposed to look after something like about twelve miles of water extending from Staines Bridge to Monkey Island. Throughout that stretch, some of the finest water in the Thames is to be found, and if this society were more thoroughly supported by the public, it is probable that no similar length of water would be more splendidly productive. It is the fashion, however, to rail at the promoters and managers of any incorporated body whose objects may not appear to be carried out well and to the point. It escapes probably the notice of those who gibe and speak harshly about the work done by the Windsor and Eton, that it is simply impossible for the

Society to keep going unless the angling public provides the sinews of war. This section of the public will know in an instant whether they have done so or not.

It is at once an injustice and a wrong to brand a body of men with shortcomings in their work, when the very work itself is dependent upon the help which a local association like the Windsor and Eton receives from the public who fish its waters. I venture to think that few, if any, of the hundreds of men who yearly go to Windsor and its charming environs* from London, sometimes taking good bags of fish home with them, ever subscribe, or ever did subscribe, one single penny to its funds.

The Maidenhead, Cookham, and Bray Angling Society, whose headquarters are at Skindle's Hotel, and whose excellent secretary is Mr. W. G. Day, takes up the work of preservation at Monkey Island, continuing their operations over an important section of the Thames. There is probably none other of the local associations which has done such wonderfully good work. But then the reason is not far to seek ; they are not only supported fairly by the local gentry and inhabitants, many of whom are themselves keen lovers of angling, but also by a considerable number of London anglers, principally members of the leading clubs. That just makes all the difference, and although I do not pretend to say that the Windsor and Eton has not done all in its power with the funds which it had at command, the Maidenhead and Cookham sets such a brilliant example, by stocking their waters with splendid Wycombe trout, and that too in the most liberal manner, that their example possibly commanded the support they have unquestionably received to a certain extent from a small section of the angling public.

I say a small section advisedly, because where a society,

like that under notice, proves that it is doing a valuable and extensive work, it ought to be recognised, in no matter how small a degree, by every angler who fishes its waters.

Now is this the case, or anything approaching to it? I say no—emphatically no. I have seen scores and hundreds of men, during the many years which I have fished the Thames, pursuing their sport on the Maidenhead waters, and but very few of them ever contribute a single farthing.

If this state of things were confined solely to the coarse fish of this or any other section of the river, it would not possibly matter so much—but then it is not. Trout fishers come and take fish—not confining themselves in some instances very strictly to size—and those very trout represent so much hard cash deducted from the Society's income. Still the Society goes on its way quietly, and year by year does good and worthy work. They are assisted by an excellent body of keepers, under the command of Harry Wilder, who is himself a rare good fisherman, and year after year show an admirable return for their labours. ,

In justice to Harry Wilder and Captain A. Styan, one of the early founders of this Association, it should be added that they were really the first to start the Society. Wilder informs me that he originated the idea of stocking this part of the river with Wycombe trout, and that he and Captain Styan raised a subscription for that purpose. Such a subscription was raised, and in the year before the Association was really started over 50 brace of fine Wycombe trout were turned into the river opposite the Ray Mead Hotel.

It may now be interesting to trace the absolute history of the Society itself.

The Maidenhead, Cookham and Bray Thames Angling Association was started so recently as 1874. The objects

in view were, generally speaking, to preserve and improve the fishing from the Shrubbery to Monkey Island, that is to say, the water between the Great Marlow and the Windsor and Eton Districts.

Prior to their establishment poaching and illegal fishing were rampant in this district ; and I am informed, by those who speak from personal knowledge, that netting on the meadows adjacent to the river during flood time was carried on wholesale, and large quantities of all kinds of river fish, the greater part undersized, were captured and sold. Wiring fish in the ditches, where they had retreated for spawning operations, was also a very common practice.

Ten years ago trout had become, comparatively speaking, a very rare fish in these parts, and a young trout of greater rarity still. Angling was almost at a standstill, and anglers were seeking other waters which promised greater success.

Several gentlemen belonging to London, and to the locality of Maidenhead, feeling that a great deal could be effected in the way of improvements at a comparatively small cost, if a good system were pursued, took the matter in hand. Support was solicited from the various classes of the community interested in the results, and it ended in this Association being formed.

Their first step, after forming a good working committee, was to make arrangements with the several riparian owners in the districts, by which the Society obtained the rights to drag their ditches and prosecute poachers, and I am pleased to say that they found little difficulty in obtaining these powers.

The Society then took into its service several of the fishermen of the district, and at their request the Thames Conservancy granted deputations for each, by which they

were empowered to enter boats to search for fish unlawfully taken, and seize any unlawful net, &c. The Society also had an understanding with its water-bailiffs, that they were to net the ditches adjacent to the river immediately after floods, and that they were to be constantly on the watch for any infringement of the Thames Conservancy By-laws.

During the nine years which have elapsed since their establishment, a number of prosecutions have resulted from the vigilance of their officers, and several convictions have been obtained. The Society has also, after floods, dragged the ditches in their district, from whence large quantities of fish have been returned to the river. The water-bailiffs have also taken a number of night-lines at different times, and I feel, I may say without fear of contradiction, that the Thames Conservancy By-laws are now far more respected in this district than they ever were before.

With a view to improve the fishing, the Society turned in, by way of experiment, a large quantity of golden bream, which were kindly placed at their disposal by the Bedford Angling Association, but the fish appear to have left this locality altogether, probably because the water, except in certain places, was entirely unsuitable to their habits.

From time to time a large quantity of good sized Wycombe trout have been turned in, running from half to five pounds in weight. I should mention that this Society wisely recognised from the first that it was worse than useless to turn in fish below half a pound in weight ; and if one may judge from the quantity of trout of that breed now taken, and the numbers of young fish seen in the Maidenhead waters, the Society has been successful in that branch of their undertaking, or at any rate so far as the limited means at their disposal would permit.

The difficulty experienced in purchasing trout of the

right sort and size induced the Society, some time since, to obtain competent advice as to the practicability of breeding and rearing them. With this view one of the vice-presidents, Mr. W. H. Grenfell, of Taplow Court, who has always shown a lively interest in the success of the Society's undertaking, expressed his willingness to place at their disposal a likely place for the purpose. In every respect but one it was pronounced suitable, but it was soon found that the constantly recurring floods would render attempts at breeding useless, and hence the scheme was not prosecuted farther.

The Great Marlow Thames Angling Association does capital work, and is thoroughly well officered. The honorary secretary is Major Simpson Carson, who most efficiently helps the Society in their efforts for the general good of the river. Here again a large share of the Society's income is laudably spent in the purchase of trout of excellent size from the Wycombe waters, which are turned into the Thames at an age, and when they have attained such a size, as enables them to take care of themselves.

The Reading and District Angling Society comes next, and in the hands of its worthy and efficient secretary, Mr. Arthur Butler, of Zinzan Street, Reading, prospers exceedingly. This Society has made the most strenuous efforts to re-stock that portion of the river more immediately under their own control, and I have little doubt that their efforts have met with the success they deserved. It was only a few years ago that the fisheries of the Reading district bore a most unenviable reputation from the extent of netting going on. To my certain knowledge now there is no section of the river which is better looked after and where I think less netting or poaching is prosecuted. Much of this happy state of things is due to Mr. Butler, who is not only a hard practical worker, but a man, moreover, who never walks

about the world with his eyes shut. Such a man is bound to do good, and Mr. Butler does it without stint.

This flourishing Thames Preservation Society—one of the most useful and influential on the river—was formed in December, 1877, at a meeting at the Queen's Hotel, Reading, at which upwards of 100 gentlemen of position were present. The intention at first was to protect and improve the fishing in the fine stretch of water between Mapledurham and Sonning—then so denuded of fish that even the poachers let it alone. Henry John Simonds, Esq., J.P., was appointed the first president; Charles Stephens, Esq., J.P., treasurer; and Mr. Arthur Butler—the originator of the movement—honorary secretary, an office he still holds. Mr. Stephens still acts as treasurer. It was soon found desirable to extend the operations of the association both up and down stream, and its district now reaches from Goring Lock to Shiplake Lock. The first president resigned in February 1881, and James Simonds, Esq., J.P., who still occupies the position, was chosen in his stead.

The association has done a really great work for the public, and all its operations have been attended with success. Since its formation about 60,000 trout have been turned in, a large proportion having been reared in a stream belonging to the association; and, as a result, trout fishing has vastly improved. Six years ago the trout were very “few and far between;” this season at least 150, ranging from two to nine pounds in weight, have been landed in the immediate neighbourhood of Reading. Coarse fish have by no means been neglected. Tens of thousands of pike, perch, roach, dace, &c., have been recovered from the ditches after floods, &c., and restored to the river; and several reservoirs and lakes have from time to time been netted, by the kind permission of the owners, and great

numbers of perch, carp, tench, rudd, &c., thus added to the stock.

Coarse fish culture has this year been undertaken with surprising success. Two large "Lund" hatching-boxes—stocked with fine Kennet perch—have been filled with spawn, all of which hatched out; and since the perch fry were liberated, a great quantity of carp spawn has been hatched.

No less than eleven bailiffs are employed by the committee, and their work has been so effectual that illegal practices have been, practically, entirely stamped out. It is gratifying to be able to state that every prosecution undertaken by the committee has resulted in a conviction.

Extensive private rights of fishing have lately been acquired for the members (an annual extra charge of five shillings being made). From these waters, fish may not be taken under the following sizes: trout 2lbs., pike 3lbs., tench 2lbs., perch $\frac{1}{2}$ lb., barbel 3lbs., carp 3lbs.—a sportsmanlike standard, which the committee recommend for observance also in the public fisheries.

The minimum subscription to the association is 10s. 6d.; but subscribers of £1 1s. and upwards have the privilege of cheap railway tickets to 28 fishing stations. There are at present 117 subscribers (elected by ballot) on the books. Last year's income was £109 19s. 7d., and the expenditure £84 5s. 11d.

The Henley and District Thames Angling Association does no doubt excellent service, and certainly not before it was wanted in that much be-poached district.

The honour of originating this Society belongs to the late honorary secretary, Charles H. Cook, Esq., whose bad health unfortunately compelled him to retire. They preserve the Thames between Temple and Hurley Locks,

and have turned into the river considerable numbers of trout. Hardly is this a very satisfactory district, I am afraid, but certainly the improvement made in the fisheries of the neighbourhood redounds very much to the credit of the Association. The president of the Association is the Right Hon. W. H. Smith, M.P., while the present secretary is Mr. J. W. Knight.

The Wycombe Angling and Preservation Society is another body of, shall I say, private conservators, from whom the Thames itself derives a very large amount of good. All the splendid trout which have been turned into the river at Maidenhead, Marlow, and other places, come from the water under the control of this association, and the following short particulars embody nearly all that is necessary to say about a Society whose reputation as trout preservers is a very great one. It has been in existence for nearly four years. It originally commenced with about one hundred members, who paid a low annual fee, but it was found necessary to gradually reduce their number and raise the subscriptions. At present it consists of 30 members who each pay an annual fee of from three to five guineas. This number also includes six artisan members at a nominal subscription. The club preserves a mile and a half of the Wycombe stream, and possesses a magnificent stock of trout. The president is the Rt. Hon. Lord Carrington; honorary secretary and treasurer, J. Thurlow, Esq.

The last of the Preservation Societies of which I shall have occasion to speak in connection with the Home District is the Newbury and District Angling Association. The following short history of its position at the present time is full of interest to anglers frequenting the lovely Kennet Valley, over which this Association has jurisdiction.

This very young association was started on the 18th of June, 1878, with the object of protecting the rivers in and about Newbury—putting a stop to poaching which had been going on for years, and also the practice of taking fish out of season, which was very rife.

After considerable trouble on the part of its chairman and committee it succeeded in obtaining leave to exercise its protective right over the whole of the waters under the control of the Mayor and Corporation of Newbury, also more than seven miles of the Kennet and Avon Canal ; and it also rents on a long lease about one mile of the river Lambourne, abounding with trout, and on which stream only the fly is allowed.

The streams over which this association exercises control are the Kennet and many of its back streams, the Lambourne, and the Kennet and Avon Canal.

The fish found in these streams are all very fine, and comprise trout, pike, perch, chub, barbel, roach, dace, carp, tench, eels, gudgeon and—last, but by no means least—very famous crayfish. Indeed, not many miles up the stream there is an old saying concerning them, running as follows—

“Hungerford crayfish,
Catch me if ye can ;
There’s no such crawlers,
In the o-ce-an.”

In a short sketch like this it is impossible to do more than glance at one or two of the notable fish for which this neighbourhood is celebrated.

Its trout are beaten *nowhere*, having been taken up to 20 lbs. While Pope pleasantly says of its eels—

“The Kennet swift,
For silver eels renowned.”

And travellers of a nearly bygone age in the old

coaching days could tell of the great gastronomic attractions of the Kennet eel,

“At the house below the hill.”

There it was that, in the days when the “Pelican” did flourish, seventy coaches in the day and night passed through the good old town.

But I must pass to the present time and the working of the Association. Well, from small beginnings it has grown so much that at the meeting previous to the next angling season this question will have to come to the fore—either the Committee must raise the price of the tickets or place a restriction upon the number of the members.

It may be as well to add that no profit whatever is made out of the Association, as it is only in existence to preserve the water and improve sport, and all its Committee of Management wish to see is enough to pay the outgoing expenses. They are of necessity large, when consideration is given to keeping up a stock of fish, by turning in hundreds at the proper season, the pay of the keepers all the year, and the constant supervision that is required.

Many fine specimens of Kennet fish may be seen in the Western Quadrant of the Fisheries Exhibition now open at South Kensington.

It only remains to add that all particulars may be obtained of the worthy chairman of the Association, Mr. John Packer, 87 Northbrook Street, Newbury, who will forward rules and all needed information upon application, and from whom *alone* tickets can be had.

There is yet another Society doing good work upon the Thames, called the Oxford Angling Association, but I regret that I received no particulars as to its constitution until too late for insertion in this book.

Finding it to be a matter of exceeding difficulty to

obtain reliable information as to the origin and growth of the various preservation societies scattered about the country, I was compelled to fall back, either upon the horns of a dilemma, or upon the charity of my very good friend, Mr. R. B. Marston, the editor of the *Fishery Gazette* who has very kindly placed at my disposal "The British Fisheries Directory," a valuable little book of reference, dedicated to Mr. Birkbeck, the Chairman of the Executive Committee of the International Exhibition. From that little volume I extract much of the following information with regard to the London and Provincial Preservation and Angling Societies of this country.

METROPOLITAN AND DISTRICT ANGLING CLUBS AND FISHERY ASSOCIATIONS.

The Fisheries Preservation Association, 22 Lower Seymour Street, Portman Square, London.

The National Fish Culture Association of Great Britain and Ireland, Royal Courts Chambers, 2 Chancery Lane.

Thames Angling Preservation Association. Thomas Sprackley, *president*; W. H. Brougham, *secretary*. Office, 7 Ironmonger Lane, E. C.

Thames Rights Defence Association, Francis Francis, *chairman*; J. M. R. Francis, *hon. sec.* Office, 11 Old Jewry Chambers, E.C.

United London Angling Associations Fisheries Society, *Star and Garter*, St. Martin's Lane, Charing Cross, W.C.

West Central Association of London and Provincial Angling Societies, P. Geen, *president*; T. Hoole, *hon. sec.* Club-House—*The Portman Arms*, Great Quebec Street.

LONDON CLUBS.

Albert	.	.	.	.	The Crown Coffee House, Coronet Street, Old Street.
Alliance	.	.	.	.	Clerkenwell Tavern, Farringdon Rd., E.C.
Alexandra	.	.	.	.	Crown and Anchor, Cheshire St., Bethnal Green.

Amicable Brothers . . .	Bald Faced Stag, Worship St., Finsbury.
Amicable Waltonians . . .	Horse and Groom, St. John's Street, Clerkenwell.
Angler's Pride . . .	Five Bells, Bermondsey Square, S.E.
Acton Piscatorial Society	George and Dragon, High St., Acton, W.
Albert Edward . . .	Tile Kiln, Tullerie Street, Hackney Road.
Anchor and Hope . . .	William the Fourth, Canal Bridge, Old Kent Road.
Act on the Square . . .	The Ferry Boat, Tottenham.
Admiral Brothers . . .	Admiral Hotel, Francis Street, Woolwich.
Acorn	Duke of York, Gloucester St., Clerkenwell.
Acme	Weaver's Arms, Drysdale Street, Kingsland Road.
Bostonian	Dalby Tavern, Prince of Wales Road, Kentish Town.
Battersea Friendly . . .	Queen's Hotel, Queen's Road, Battersea.
Bloomsbury Brothers . .	Rose and Crown, Broad St., Bloomsbury.
Bermondsey Brothers . .	Alscot Arms, Alscot Road, Grange Road, Bermondsey.
Brothers Well Met . . .	Berkeley Castle, Rahere St., Goswell Rd.
Beresford	Grove House Tavern, Camberwell Grove.
Burdett	Joiners' Arms, 118 Hackney Road.
Bridgewater Brothers . .	Three Tuns, Bridgewater Gardens, Barbican.
Brunswick	Brunswick Arms, Stamford St., Blackfriars.
Brentford	Angel Inn, Brentford End, Brentford.
Buckland	Middlesex Arms, Clerkenwell Green.
Barbican	White Bear, St. John Street, Clerkenwell.
Battersea Piscatorials . .	Queen's Head, York Road, Battersea.
Cadogan	Prince of Wales, Exeter Street, Sloane Street, S.W.,
City of London	Codger's Hall, Bride Lane, Fleet Street.
Cavendish	Duke of York, Wenlock Street, Hoxton.
Clerkenwell Amateurs . .	George and Dragon, St. John Street Road.
Convivial	Bull and Bell, Ropemakers' Street, Moorfields, E.C.
Carlisle	Hall of Science Club and Institute, Old Street, E.C.
Clapham Junction	Lord Ranelagh, Verona Street, Clapham Junction.

Canonbury . . .	Monmouth Arms, Haberdasher Street, Hoxton.
Cambridge Friendly .	Rent Day, Cambridge Street, Hyde Park Square.
Cobden . . .	Cobden Club, Landseer Terrace, Westbourne Park.
Clerkenwell Piscatorials .	Horse Shoe, Clerkenwell Close.
Crescent . . .	Giraffe Tavern, Newington Crescent, Kennington Park Road.
Critchfield . . .	Myddleton Arms, Queen's Rd., Dalston.
Crown . . .	Crown and Sceptre, Friendly St., Deptford.
Crown Piscatorials .	Crown Tavern, Clerkenwell Green.
Dalston . . .	Hope, Holles Street, Dalston.
De Beauvoir . . .	Lord Raglan, Southgate Road, Islington.
Duke of Cornwall .	Duke of Cornwall, Lissmore Circus, Haverstock Hill.
Duke of Norfolk .	Ledbury Arms, Ledbury Road, Bayswater.
Ealing Dean . . .	Green Man, Ealing Dean, W.
Excelsior . . .	The Hope, Bird Street, Kennington.
Excelsior . . .	Palmerston, Well Street, Hackney.
Eustonian . . .	King's Head, Swinton St., Gray's Inn Rd.
Edmonton and Tottenham	Three Horse Shoes, Silver St., Edmonton.
Friendly Anglers . .	Albion Tavern, Albion St., Hyde Park.
Foxley . . .	Foxley Arms, Elliot Road, Brixton.
Golden Tench . . .	Somers Arms, Ossulton St., Euston Rd.
Golden Barbel . . .	York Minster, Foley Street, Portland Rd.
Good Intent . . .	Crown Inn, Church Street, Shoreditch.
Grafton . . .	King's Arms, Strutton Ground, Wesminster.
Grange . . .	Grange Club and Institute, Bermondsey, S.E.
Great Northern Brothers	Robin Hood, Southampton Street, Pentonville.
Globe . . .	Bank of Friendship, Blackstock Road, Highbury Vale.
Gresham . . .	Mason's Hall Tavern, Basinghall St., E.C.
Hammersmith Club .	Grove House, Hammersmith Broadway.
Hammersmith United .	Builders' Arms, Bridge Road, Hammersmith.
Hearts of Oak . . .	Dolphin, Church Street, Shoreditch.

Highbury . . .	Plimsoll Arms, St. Thomas's Road, Finsbury Park.
Hoxton Brothers . .	Cherry Tree, Kingsland Road, Shoreditch.
Hampstead . . .	Cock and Crown, High Street, Hampstead.
Isledon Piscatorials .	Crown and Anchor, Cross St., Islington.
Izaak Walton . . .	Old King John's Head, Mansfield Street, Kingsland Road.
Jovial	Jolly Anglers, Whitecross Row, Richmond, Surrey.
Junior Piscatorial . .	Duke of Cornwall, South Island Place, Clapham Road.
Jolly Piscatorials . .	Sugar Loaf, Great Queen Street, W.C.
Kentish Perseverance .	Corner Pin, Cold Bath, Greenwich.
Kenningtonian . . .	The Clayton Arms, Kennington Oval.
Knights of Knightsbridge	Grove Tavern, Grove Place, Brompton Road, S.W.
King's Cross United .	Prince Albert, Wharfedale Road, King's Cross.
Kingfishers	Oliver Arms, Westbourne Terrace, Harrow Road.
Kentish Brothers . . .	George and Dragon, Blackheath Hill.
L. & S. W. Railway . .	Brunswick House, Nine Elms.
Larkhall	The Larkhall, Larkhall Lane, Clapham.
Limehouse Brothers . .	Dunlop Lodge, 70 Samuel St., Limehouse.
Little Independent . .	Russell Arms, Bedford Street, Amptill Square.
Metropolitan	The Rose, Old Bailey.
Marylebone	Prince Albert, Sherbourne Street, Blandford Square, W.
Nautilus	British Lion, Central Street, St. Luke's.
Norfolk	Norfolk Arms, Burwood Place, Edgware Road.
North London	Prince Albert, Hollingsworth St., Holloway.
North Eastern	Shepherd and Flock, Little Bell Alley, Moorfields.
North Western	Lord Southampton, Southampton Road, Haverstock Hill.
New Globe	Albion, Bridge Road, Stratford.
Never Frets	Crown and Shuttle, High St., Shoreditch.

Nelson	Nelson Working Men's Club, 90 Dean St., Soho.
Odds and Evens . .	Albion, East Road, Hoxton, N.
Original Clerkenwell .	White Hart, Aylesbury St., Clerkenwell.
Original Alexandra . .	Duke of Wellington, Three Colt Lane, Bethnal Green.
Peckham Perseverance .	Eagle, 118 Trafalgar Road, Camberwell
Pictorial	King's Arms, Tottenham Court Road.
Penge	Lord Palmerston, Maple Road, Penge.
Phoenix	Tavistock Arms, Wellington St., Oakley Square.
Prince of Wales . . .	Victory, Newnham Street, John Street, Edgware Road.
Portsmouth Waltonian .	Golden Fleece, High Street, Landport.
Peckham Brothers . .	Prince Albert, East Surrey Grove, Peckham.
Princess of Wales . .	Prince of Wales, Gt. Barlow St., Manchester Square, W.
Perseverance	The Perseverance, Pritchard's Row, Hackney Road.
Pike and Anchor . . .	Pike and Anchor, Ponder's End.
Queen's	Queen's Arms, Bomore Road, Notting Hill, W.
Reform	Jolly Coopers, Clerkenwell Close.
Royal George	Hope Tavern, Tottenham St., Tottenham Court Road.
Richmond Piscatorial .	Station Hotel, Richmond.
Royal Piscatorial . .	Foxley Tavern, Elliott Road, Brixton.
Rodney	Albion, Rodney Road, Walworth, S.E.
Second Surrey . . .	Queen's Head, Brandon St., Walworth.
South Essex	The Elms, Leytonstone, E.
Sportsman	Lady Owen Arms, Goswell Road.
Suffolk	Suffolk Arms, Boston St., Hackney Rd.
South Essex	Victoria Dock Tavern, Canning Town, E.
St. John's	Three Compasses, Cow Cross Street, Farringdon Street.
Savoy Brothers . . .	Green Man, St. Martin's Lane.
Silver Trout	Star and Garter Hotel, St. Martin's Lane, W.C.
St. Alban's	Royal George, Great New St., Kennington Park Road.

Sir Hugh Myddleton	. Empress of Russia, St. John Street Road, Clerkenwell.
South London.	. . George and Dragon, 235 Camberwell Rd.
St. Pancras Club	. . 2 Crescent Place, Burton Crescent.
Stanley Anglers	. . The Lord Stanley, Camden Park Road, Camden Town.
Star . . .	. King's Arms, Charles Street, City Road.
Stepney . . .	. Beehive, Rhodeswell Road, Stepney.
South Belgravia	. . Telegraph, Regency Street, S.W.
Surrey Piscatorial	. . St. Paul's Tavern, Westmoreland Road, S.E.
South Eastern.	. . Prince Arthur, Stamford Street, S.E.
Sussex . . .	. Sussex Arms, Grove Road, Holloway.
Sociable Brothers	. . Princess, 237 Cambridge Rd., Mile-End.
Social Brothers	. . Prince Regent, Dulwich Rd., Herne Hill.
St. James's and Soho	. . 39 Gerrard Street, Soho, W.
Stoke Newington	. . Myddleton Arms, Mansfield St., Kingsland Road.
St. John's Wood	. . Queen's Arms, Lower William Street, St. John's Wood.
Society of Caxtonians	. . Falcon Tavern, Gough Square, E.C.
The Piscatorial	. . Ashley's Hotel, Henrietta Street, Covent Garden.
Trafalgar . . .	. Star and Garter, Green Street, Leicester Square.
True Waltonians	. . White Horse, 80 Liverpool Rd., Islington.
Three Pigeons	. . Three Pigeons, Lower Richmond Road, S.W.
United Brothers	. . Druid's Head Tavern, Broadway, Deptford.
United Essex . . .	. Dorset Arms, Leyton Rd., Stratford New Town.
United Society of Anglers	Duke of Wellington, Shoreditch.
United Marlboro' Brothers	Hercules' Pillars, 7 Greek Street, Soho.
Woolwich Piscatorials	. Cricketer's Arms, Sand Street, Woolwich.
West Ham Brothers	. Queen's Head, West Ham Lane, E.
Woolwich Invicta . . .	. Golden Marine, Francis St., Woolwich.
Waltonians . . .	. Jew's Harp, Redhill St., Regent's Park.
Walton and Cotton .	. Crown and Woolpack, St. John's Street, Clerkenwell.
Walworth Waltonians	. St. Paul's, Westmoreland Rd., Walworth.

West Central . . .	Cross Keys, Theobald's Road, High Holborn.
Woolwich Brothers . .	Prince Regent, King Street, Woolwich.
Westbourne Park . .	Pelican, All Saints' Road, Westbourne Park, W.
Walthamstow . . .	Common Gate, Markhouse Road, Walthamstow.
West London . . .	Windsor Castle, King St., Hammersmith.
Watford . . .	Leathersellers' Arms, Watford, Herts.
Wellington . . .	Prince Regent, Beresford St., Walworth.

ENGLAND.

BEDFORDSHIRE.

Bedford Angling Society, Bedford.

Blunham Angling Association—C. Forge, 11 and 12 Addle Street, Wood Street, *secretary*.

BERKSHIRE.

Maidenhead, Cookham, and Bray Thames Angling Association—W. G. Day, *secretary*. Club-House—*Skindle's Hotel*.

Newbury and District Angling Association—J. Smith, 62 Northbrook Street, Newbury, *secretary*.

Reading and District Angling Association—Arthur C. Butler, *hon. sec.* Club-House—*Great Western Hotel*, Reading.

Windsor and Eton Angling Club. Club-House—*Royal Oak Hotel*, Windsor.

Windsor and Eton Angling Preservation Association—Rev. E. James, Eton, *secretary*.

BUCKINGHAMSHIRE.

Great Marlow Thames Angling Association—Major Simpson Carson, Great Marlow, *hon. secretary*.

High Wycombe Angling Association, High Wycombe.

Marlow Angling Association—A. Maskell, Great Marlow, *secretary*.

CAMBRIDGESHIRE.

Cambridge and Ely Angling Society—W. Purchas, *secretary*. Club-House—*Lion Hotel*, Cambridge.

CHESHIRE.

No. 1 Crewe Angling Society—John Dickens, *secretary*. Club-House—*Dog and Partridge Inn*, High Street, Crewe.

CUMBERLAND.

Carlisle Angling Association—J. B. Slater, Carlisle, *secretary*.

DERBYSHIRE.

Aquarium Angling Society—T. Winfield, *secretary*. Club-House—*The Three Crowns*, Bridge Street, Derby.

Burton-on-Trent Angling Association—Sir M. A. Bass, Bart., M.P., *president*; John C. Perfect, *hon. sec.* Club-House—*Midland Hotel*, Burton-on-Trent.

Castle Fields Angling Club, Messrs. Beden's Factory, London St., Derby—M. Bland, *secretary*.

Chatsworth Angling Club, Chatsworth.

Chesterfield Angling Association—G. R. Hornstock, 26 Durrant Road, Chesterfield, *secretary*.

Excelsior Angling Club—J. Hibbert, *secretary*. Club-House—*Lamb Inn*, Park Street, Derby.

Mazeppa Angling Club, Traffic Street, Derby—F. Bond, *secretary*.

Melancthon's Head Angling Club, Park Street, Derby—W. Peet, *secretary*.

Pride of Derby Angling Club—W. Tunnicliff, *secretary*. Club-House, *Old English Gentleman*, Normanton Road, Derby.

Red Lion Angling Association, Bridge Street, Derby—Joseph Selvey, *secretary*.

DEVONSHIRE.

Avon and Erme Fishery Association, Plymouth.

Culm Fishery Association—C. J. Upcott, Shortlands, Cullompton, *secretary*.

Exe Landowners' Salmon Fishing Association—Mr. Whippell, Rudway, Silverton, *secretary*.

Exe Occupiers' Troutng Association—W. C. James, Thorverton, *secretary*.

Lower Exe United Fishing Association, Exeter.

Tiverton Angling Association, Tiverton.

Upper Culm Fishery Association, Exeter.

Upper Exe Angling Society, Exeter.

GLOUCESTERSHIRE.

Avon and Tributaries Angling Association—E. B. Villiers, 26 Bath Street, Bristol, *hon. secretary*.

Bristol Golden Carp Angling Association—Lewis Wride, Digby House, Barton Hill, Bristol, *secretary*.

Bristol United Anglers' Association—R. D. Frost, 48 Victoria St., Bristol, *secretary*.

Cheltenham Angling Society—W. H. Davis, 7 Priory Terrace, Cheltenham, *secretary*.

City of Bristol Angling Association—H. Lewis, Morton House, Barton Hill, Bristol, *secretary*.

HAMPSHIRE.

Portsmouth Waltonian Society—F. Tranter, *secretary*. Club-House—*Golden Fleece*, Commercial Road, Portsea.

Stockbridge Angling Club, Stockbridge.

Titchfield Angling Club—E. Goble, solicitor, Titchfield, *secretary*.

HEREFORDSHIRE.

Bodenham Angling Club, Bodenham.

Leominster Angling Club—V. W. Holmes, National Provincial Bank, Leominster, *secretary*.

HERTFORDSHIRE.

Harefield Valley Fishery, Rickmansworth.

Watfield Piscatorial Society—H. A. Vincent, *hon. sec.* Club-House—*The Leathersellers' Arms*, Watford.

KENT.

Maidstone Angling and Medway Preservation Society—David Pine, Maidstone, *hon. secretary*.

Stour Fishery Association—Club House—*Fordwich Arms*.

Tonbridge Angling Association—Edwin Hollomby, *secretary*. Club-House—*Bull Hotel*, High Street, Tonbridge.

LANCASHIRE.

City of Liverpool Angling Association, 19 West Derby Road, Liverpool.

Liverpool Angling Association—Richard Woolfall, *hon. sec.* Club-House—*Strawberry Hotel*, West Derby Road, Liverpool.

Liverpool Central Angling Association, 181 Dale Street.

Manchester Anglers' Association—Abel Heywood, jun., *hon. sec.*

Manchester and District Anglers' Association—J. Procter, *president*; Edwin Hicks, 6 Belmont Street, Eggington Street, Rochdale Road, *secretary*. The Association comprises sixty-six different Clubs.

Stalybridge Angling Society—J. B. Udale, *secretary*. Club-House—*The Q. Inn*, Stalybridge.

Stamford and Warrington Angling Club. Club House—*Guide Post Tavern*, Stalybridge.

Wigan and District Amalgamated Anglers' Association—Levi Booth, *president*; John Stones, *secretary*. This Association consists of twenty-six different Clubs.

LEICESTERSHIRE.

Leicester Jolly Anglers' Club. Club-House—*The Earl of Leicester, Inn*, Infirmary Square, Leicester.

North Britons' Angling Association. Club-house—*The York Castle*, Northgate Street, Leicester.

LINCOLNSHIRE.

Boston Angling Association—Mr. Day, Boston, *secretary*.

Great Grimsby Angling Association. Club-House—*Masons' Arms Hotel*, Great Grimsby.

Market Deeping Angling Association—S. B. Sharpe, Market Deeping, *hon. secretary*.

MONMOUTHSHIRE.

Abergavenny Fishing Association—C. J. Daniel, Cross St., Abergavenny, *treasurer*.

Usk Fishery Association—Charles R. Lyne, Tredegar Place, Newport, *secretary*.

NORFOLK.

Bure Preservation Society—C. J. Greene, London St., Norwich, *secretary*.

East Anglian Piscatorial Society—R. Palmer, Great Eastern Wine Vaults, Norwich, *secretary*.

Great Yarmouth Piscatorial Society—James Lark, St. George's Tavern, 162 King St., Great Yarmouth, *secretary*.

King's Lynn Angling Association—Frederick Ludby, *president*; H. Bradfield, *hon. secretary*.

Norwich Angling Club—R. Moll, *hon. sec.* Club-House—*Walnut Tree Shades*, Old Post-Office Yard, Norwich.

Norwich Central Fishing Club. Club-House—*Old Oak Shades* Lower Goat Lane, Norwich.

Norwich Champion Angling Club—G. Daniels, *president*.

Norwich Piscatorial Society—Mr. Capon, *secretary*. Club-House—*Walnut Tree Shades*, Old Post-Office Yard, Norwich.

Wensum Preservation Association—E. H. Horsley, Fakenham, *hon. secretary*.

Yare Preservation and Anglers' Society—C. J. Greene, London St., Norwich, *secretary*.

NORTHAMPTONSHIRE.

Northampton Working Men's Angling Club. Club-House—Bridge Street, Northampton.

Wellingborough and Higham Ferrers Angling Club—E. Brummitt, Wellingborough, *secretary*.

NOTTINGHAMSHIRE.

Lenton Anglers' Association—George Tilley, *hon. sec.* Club-House—*Black's Head Inn*, Lenton, Nottingham.

Newark Piscatorial Society. Club-House—*Horse and Gears Inn*, Portland St., Newark.

Nottingham and Notts Anglers' Preservation Association—Mr. Clarke, *secretary*. Club-House—*The Minstrel Tavern*, Market St., Nottingham.

Wellington Angling Association—Club-house—*Wellington Hotel*, Station St., Nottingham.

OXFORDSHIRE.

Henley and District Thames Angling Association—Mr. Cooke, Henley, *secretary*.

Oxford Angling Society. Club-house—*The Pheasant Inn*, St. Giles, Oxford.

Oxford Thames Angling Preservation Society—W. T. Mayo, 13 Cornmarket Street, Oxford, *hon. secretary*.

RUTLANDSHIRE.

Oakham Angling Society, Oakham.

SHROPSHIRE.

Plowden Fishing Association (River Onny)—A. B. George, Dodington, Whitchurch, *hon. treasurer*.

Shrewsbury Severn Angling Society—F. H. Morgan, *hon. sec.* Club-House—57 Mardol, Shrewsbury.

SOMERSETSHIRE.

Kingswood and District Angling Association, Kingswood.

STAFFORDSHIRE.

Cobridge Angling Society. Club-House—*Wedgewood Hotel*, Waterloo Rd., Burslem.

Isaac Walton Angling Club—William Gregory, *secretary*. Club-House—*Coach and Horses*, Stafford St., Longton.

Isaac Walton Angling Club—Frederick Higginson, *secretary*. Club-House—*Dresden Inn*, near Longton.

Longton Excelsior Angling Club—Thomas Morris, *secretary*. Club-House—*Crown and Anchor*, Longton.

Stoke-upon-Trent Angling Society—J. Hollins, *hon. sec.* Club-House—*Pike Hotel*, Copeland Street.

SUFFOLK.

Gipping Angling Preservation Association—George Josselyn, *president*; W. C. S. Edgecombe, National Provincial Bank, Ipswich, *hon. secretary*.

Norfolk and Suffolk Fish Acclimatisation Society—Edward Birbeck, M.P., *president*; W. Oldham Chambers, Lowestoft, *hon. sec.*

SURREY.

Godalming Angling Society—F. Dowse, High Street, *hon. sec.* Club-House—*Sun Inn*, Godalming.

Richmond Piscatorial Society—F. Gaunt, *secretary*. Club-House—*Station Hotel*, Richmond.

SUSSEX.

Brighton Anglers' Association, Brighton.

Chichester Angling Society—W. Cooke, *secretary*. Club-House—*Globe Hotel*, Chichester.

Ouse Angling Preservation Society—Hector Essex, Hillside, Lewes, *hon. secretary*.

Rother Fishery Association—D. N. Olney, Blenheim House, Robertsbridge, *secretary*.

WARWICKSHIRE.

Birmingham and Midland Piscatorial Association—James Gregory, 39, Vyse St., *hon. secretary*.

WESTMORELAND.

Kent Angling Association—G. Fisher, Kendal, *hon. secretary*.

Milnthorpe Angling Society—W. Tattersall, Milnthorpe, *secretary*.

WILTSHIRE.

Bradford-on-Avon Angling Association.

Sarum Angling Club—H. Selby Davison, 40 King St., London, E.C., *secretary*.

WORCESTERSHIRE.

Evesham Angling Club, Evesham.

Isaac Walton Angling Society—Club-House, *Plough Inn*, Silver St., Worcester.

Teme Angling Club—W. Norris, Worcester, *secretary*.

YORKSHIRE.

Aire Fishing Club—T. H. Dewhurst, Whin Field, Skipton, *secretary*.

Burnsall, Appletrewick, and Barden Angling Club—T. J. Critchley, Brook St., Ilkley, *secretary*.

Costa Anglers' Club—J. H. Phillips, 22 Albemarle Crescent, Scarborough, *secretary*.

Derwent Anglers' Club. Address—Mr. Patrick, gunmaker, Scarborough.

Hawes and High Abbotside Angling Association—B. Thompson-Hawes, *secretary*.

Knaresborough Star Angling Club. Club-House—C. M'Nichols, Knaresborough.

Marquis of Granby Angling Society—T. H. Settle, *hon. sec.* Club-House—*The Marquis of Granby*, Leeds.

Middleham Angling Association—J. E. Miller, Middleham, *secretary*.

Otley Angling Club—Mr. Pratt, Otley, *secretary*.

Rockingham Angling Society—E. F. Atkinson, *president*. Club-House—*The Fox*, Leeds.

Ryedale Angling Club, Hovingham.

Sheffield Anglers' Association—Charles Styring, *president*; Messrs. Baker, Gill, Greaves, Guest, Jenkinson, Leonard, Sheldon, Stuart, Swinden, Thompson, Unwin, and White, *committee*; Thomas Walker, 24 Blue Boy St., Sheffield, *secretary*. This Association comprises 232 Clubs in Sheffield and district.

Wilkinson Angling Association, Hull.

ANGLING CLUBS AND FISHING ASSOCIATIONS IN SCOTLAND.

ABERDEENSHIRE.

Dee Salmon Fishing Improvement Association—William Milne, C.A., 147 Union St., *secretary*.

BERWICKSHIRE.

Berwick Anglers' Club—Robert Weddell, solicitor, Berwick, *secretary*.

Coldstream Angling Club—John Tait, High St., Coldstream, *secretary*.

Ellen Fishing Club, Duns—The Hon. Edward Marjoribanks, *president*; G. Turnbull, 58 Frederick St., Edinburgh, *secretary*.

Greenlaw Fishing Club—David Leitch, Greenlaw, *secretary*.

DUMFRIESSHIRE.

Esk and Liddle Fisheries Association—The Duke of Buccleuch, K.G., *president*; Robert M' George, writer, Langholm, *secretary*.

EDINBURGSHIRE.

Cockburn Angling Association—George E. Y. Muir, 1 West Cross-causeway, Edinburgh, *secretary*.

Edinburgh Angling Club—William Menzies, 18 Picardy Place, *secretary*.

Edinburgh Amateur Angling Club—J. Gordon Mason, S.S.C., *secretary*.

Midlothian Angling Club—Joseph A. Cowan, 53 Rose St., *secretary*.

Penicuik Angling Club—James Foulis, clothier, Penicuik, *secretary*.

St. Andrew Angling Club—Professor Williams, *president*; J. Young Guthrie, S.S.C., 29 Hanover St., Edinburgh, *secretary*.

Walton Angling Club—Professor Williams, *president*; James Grant, S.S.C., 12 Howard Place, Edinburgh, *secretary*.

Waverley Angling Club—John M'Dougal, 3 Rutland Place, Edinburgh, *secretary*.

FIFESHIRE.

Dunfermline Angling Club—James Mathewson, Dunfermline, *secretary*.

Kirkcaldy Angling Club—Patrick Don Swan of Springfield *president*; Thomas Johnston, solicitor, Kirkcaldy, *secretary*.

FORFARSHIRE.

Alyth Angling Club—Major Japp, *president*; James D. Murdoch, Alyth, *secretary*.

Arbroath Angling Club—David A. Wilson, Kirk Wynd, Arbroath, *secretary*.

Brechin Angling Club—James B. Hodge, 2 Swan St., Brechin, *secretary*.

Canmore (Forfar) Angling Club—David Maxwell, 16 Watt St., Forfar, *secretary*.

Dundee Angling Club—David Ireland, Calcutta Buildings, Dundee, *secretary*.

Dundee West End Angling Club—Alexander Mitchell, Roseangle, Dundee, *secretary*.

Dundee Walton Club—W. Mudie, 3 Athole Terrace, Maryfield, Dundee, *secretary*.

Forfar Angling Club—James Dall, joiner, Market Place, Forfar, *sec.*

Strathmore (Forfar) Angling Club—James Paton, 10 Arbroath Road, Forfar, *secretary*.

HADDINGTONSHIRE.

East Linton Angling Club—The Rev. Thomas Stirling Marjoribanks, Prestonkirk, *president*; George Smellie, East Linton, *secretary*.

Haddington Fishing Club—Captain Houston of Clerkington, *president*; George Angus, 35 Court St., Haddington, *secretary*.

KINROSS-SHIRE.

Kinross-shire Fishing Club—Thomas Steedman, Clydesdale Bank, Kinross, *secretary*.

Loch Leven Angling Association (Limited)—Sir J. R. Gibson-Maitland, Bart. of Craigend, *president*; George Bogie, solicitor, Kinross, *secretary*.

LANARKSHIRE.

Abington Angling Club—David Oswald, teacher, Abington, *sec.*

Buckland Angling Club—William Cross, 41 York St., Glasgow, *secretary*.

Coatbridge Angling Club—David Girdwood, Langloan, Coatbridge, *secretary*.

Echaig Angling Club—John Clark, 17 Royal Exchange Square, Glasgow, *secretary*.

Glasgow Dodgers.

Glasgow Junior Angling Club.

Lanark Amateur Angling Association—David Gourlay, Bannatyne Street, Lanark, *secretary*.

Lanarkshire United Anglers' Protective Association—Crawford Brown, 110 Garthland Drive, Glasgow, *secretary*. (Nine associated Clubs.)

Loch Lomond Angling Improvement Association—Alfred Brown, 163 West George Street, Glasgow, *secretary*.

Motherwell Star Angling Club—James Brown, Braidhurst Colliery, Motherwell, *secretary*.

Stonehouse Angling Club—A. Hamilton, Stonehouse, *secretary*.

St. Mungo Angling Club—W. Craig Ramsay, writer, Glasgow, *secretary*.

Trout Preservation Association—David B. Macgregor, 51 West Regent Street, Glasgow, *secretary*.

West of Scotland Angling Club—David B. Macgregor, 51 West Regent Street, Glasgow, *secretary*.

Western Angling Club—John Wilson, 59 St. Vincent Street, Glasgow, *secretary*.

LINLITHGOWSHIRE.

Armadale Angling Club—Robert Kerr, South Street, Armadale, *secretary*.

Avon Conservancy Association—W. Horn Henderson, Linlithgow, *secretary*.

Bathgate Angling Club—Robert Bryce, Bridgend, Bathgate, *sec.*

PEEBLESHIRE.

Peebles Vigilance Trout Protection Association—Charles Tennant, M.P., The Glen, *president*; James Anderson, Peebles, *secretary*.

Peebles Angling Association—James Wolfe Murray of Cringletie, *president*; Alexander Pairman, grocer, Peebles, *secretary*.

St. Ronan's Angling Club—James Cossar, Innerleithen, *secretary*.

PERTHSHIRE.

Aberfeldy Club—James Forbes, Chapel Street, Aberfeldy, *secretary*.

Aberfoyle Angling Club.

Blairgowrie Angling Club.

Perth Anglers' Club—P. D. Malloch, 209 High Street, Perth, *secretary*.

Perthshire Fishing Club—Robert Keay, City Chambers, Perth, *sec.*

ROXBURGHSHIRE.

Kelso Angling Association—Sir G. H. S. Douglas, Bart., of Springwood Park, *president*; Archibald Steel, Bridge Street, Kelso, *secretary*.

Upper Teviotdale Fisheries Association—The Duke of Buccleuch, K.G., *president*; Walter Haddon, Royal Bank of Scotland, Hawick, *secretary*.

SELKIRKSHIRE.

Caddonfoot Fishings—H. W. Cornillon, S.S.C., 139 George Street, Edinburgh, *secretary*.

Gala Angling Association—Robert Hall, 131 High Street, Galashiels, *secretary*.

Selkirk Angling Association—John Anderson, Elm Row, Selkirk, *secretary*.

STIRLINGSHIRE.

Bonnybridge Angling Club—Alexander Mitchell, Greenbank Cottage, Bonnybridge, *secretary*.

Callander Angling Club—D. Melrose, Callander, *secretary*.

Denny and Dudipace Angling Club—Robert Shearer, Well Strand, Denny, *secretary*.

Dollar Angling Club.

Dollar and Devondale Angling Club—Peter Cousins, Dollar, *sec.*

Doune Angling Club—W. H. Hogg, Lanrick Castle, Doune, *sec.*

East Stirlingshire Association of Anglers—John Hogg, writer, Larbert, *secretary*.

Falkirk Angling Club—J. A. Miller, 144 High St., Falkirk, *secretary*.

Forth Angling Club, Stirling.

Haggs Angling Club—George Mirk, Haggs, by Denny, *secretary*.

Muiravonside and Polmont Angling Club—A. Campbell, Blackbraes, Falkirk, *secretary*.

Sauchie and Whins of Milton Angling Club—Sir J. R. Gibson-Maitland, Bart., of Craigend, *president*; Wm. Reid, Whins of Milton, by Stirling, *secretary*.

Skinflatts Angling Club—William Russell, Skinflatts, by Falkirk, *secretary*.

Stirling Forth and Teith Angling Association—Alexander Moffat, Clydesdale Bank, Stirling, *secretary*.

Stirling Fishing Club—Sir J. R. Gibson-Maitland, Bart., of Craig-end, *president*; Robert M'Luckie, Stirling, *secretary*.

The following short descriptions of some of the most prominent Angling and Preservation Societies of the Provinces are compiled mainly from the information kindly supplied by the secretaries of each Association. They are placed as nearly as may be in alphabetical order, the particulars being summarised as much as possible, so as to come within the scope of this little book.

AIRE FISHING CLUB.

This club, which has been in existence some forty-five years, was founded and fostered by J. R. Tennant, Esq., of Kildwick Hall, Skipton. It consists of twenty members, paying an entrance fee of ten guineas, and an annual subscription of the like amount, who preserve the river from Cargrave to Eastburn Brook. It has also a number of subscribers, limited to thirty, paying an annual subscription of thirty shillings, who are allowed to fish the river from Carleton Stone Bridge to Eastburn Brook. The Hon. Secretary is T. H. Dewhurst, Esq., of Whinfield, Skipton, while the President is J. R. Tennant, Esq.

ABERGAVENNY FISHING ASSOCIATION.

This Association was founded in 1860, and has been carried on from that time with fairly good success. The number of salmon and trout season tickets is limited to 20, the holders of such tickets in the previous years having

the option of renewing them. Five of these tickets are reserved for persons living twenty miles from the town.

Rule 6 provides: That the price of salmon and trout season tickets be 40/-, except to persons who, in the judgment of the committee, are professional fishermen, who will be charged £10; season tickets for trout, 20/-, to admit the use of fly, worm, minnow, or gentle; season tickets for trout, if fly only be used, 10/-. Day tickets for salmon and trout, 5/-, to be restricted to persons residing 10 miles or more from the town; day tickets for trout, fly only to be used, 2/6; or 5/- to admit the use of worm, minnow, or gentle. None of these tickets are transferable, except as provided for in Rule 8. Also that tickets for clodding for eels shall be issued at 5/-; and that tickets for dace fishing during the trout closed season shall be 5/-; or to include both eels and dace, 10/-, such fishermen to be subject to Rule 10, as to time of fishing. Ladies may be allowed to fish on the payment of half the price of any of these tickets.

The Association has about two miles of water, most of which can be fished from both banks. The Marquis of Abergavenny gives the right of fishing from his property on the left bank, while the Association rents the right bank from a local landowner.

THE BIRDSGROVE FLY-FISHING CLUB, MAYFIELD, ASHBOURNE.

This club, which is limited to twenty members paying an annual subscription of five pounds each, was formed by J. H. Villiers, Esq., and fishes four miles of the river Dove situate about a mile from Ashbourne, and lying between the Okeover and Norbury Fishing Clubs. The river

abounds in trout and grayling, and runs through some very fine scenery.

The members at present consist of eighteen gentlemen, thus showing a vacancy for two more rods.

BRADFORD-ON-AVON FISHING ASSOCIATION.

This Association was formed about ten years ago with the object of putting a stop to the poaching, netting and pollution which was then going on in the Avon. The principal supporters of it were W. Stevine, Esq., of Warleigh, the Rev. George Baker, of Manor House, Freshford, and Captain Sainsbury, of Bathford. It preserves the river from Holt to Stoke, which distance is divided into three sections. The charge for a yearly ticket for the whole of the water is £1, and such ticket is transferable to any member of the owner's family. For half the water the cost of a ticket is 10s., and for one of the sections it is 2s. 6d. per month. In 1876 the water was handed over to an association formed at Bristol, of which Mr. E. W. B. Villiers, of 26 Bath Road, Bristol, is secretary.

BOSTON ANGLING ASSOCIATION

Was established in 1871, having for its object the prevention of the wholesale destruction, by netting, of fish in the river Witham and its tributary streams, so that good angling might be provided for the inhabitants of Boston, its visitors, and the neighbourhood. This object the Association has undoubtedly attained, and is now one of the largest and best free fisheries for coarse fish in the kingdom, being bountifully supplied with pike, perch, roach, rudd, chub, ruffe, bleak, bream (two kinds), tench and eels. Burbot are occasionally taken. It is 148 miles in extent, comprising the river Witham, and the drains in the East,

West and Wildmore Fens, under the jurisdiction of the River Witham Drainage Commissioners, and under whose by-laws the B. A. A. have power and act. At the present time it is the principal resort of the Sheffield anglers, it being nothing uncommon to witness two thousand in a single day. It is computed by competent authorities that there were not less than 30,000 visitors last season. It is regulated by a code of rules twenty in number, and supported by voluntary contributions. The officers consist of patrons, a president, vice-presidents, treasurer, secretary, and a committee of management. The officers are appointed annually by ballot, on the first Monday in July. The committee meets monthly on the second Wednesday in every month, having power to call special meetings. The quarterly meetings are held the first Monday in October, January and April.

Besides the above there is the North and South Forty-foot drains, about forty miles in extent, under the jurisdiction and management of the Black Sluice Drainage Commissioners. The latter drain is large and deep, with excellent water, and though it has only been preserved three seasons it abounds with most kinds of the fish previously mentioned, but is particularly noted for its pike and perch. There is a small annual fee of 2s. 6d. charged by the Commissioners on these waters.

BRISTOL GOLDEN CARP ANGLING ASSOCIATION.

This Association was founded in September 1879, and is limited to 200 members. The subscription for the first year is 5s., and 2s. 6d. per annum afterwards. General meetings are held the last Monday in each quarter, and committee meetings last Monday in each month.

Secretary, Lewis C. Wride, Digby House, Barton Hill, Bristol.

CARLISLE ANGLING ASSOCIATION.

This Association was formed in 1852 to preserve the River Eden and its tributaries. Up to that time a great amount of poaching had existed, there being no regular watchers on the river. In the first year of its existence the bailiffs seized thirty-two illegal nets, in most cases securing convictions. Up till 1870 they were the only preservers of the river, then, however, the Eden Board of Conservancy was formed, having a staff of ten men and an inspector, whose salaries were paid out of the funds arising from the sale of net and rod licences. The number of salmon and trout has steadily increased since the Association was formed. In 1878 the salmon disease broke out amongst the fish, and has continued more or less ever since, showing itself principally in the spring and autumn. The Eden is one of the finest trout and salmon rivers in England, abounding in fishy streams and runs with occasional rocky pools. There are netting-stations for fifteen miles from the outlet, but in spite of these salmon and grilse run up the river in large numbers. The Hon. Sec. is J. Bedwell Slater, Esq., of Chatsworth Square, Carlisle.

THE CHICHESTER ANGLING SOCIETY.

This Association was established in 1881. Its Patron is His Grace The Duke of Richmond and Gordon, while the President is W. W. Baker, Esq., and Vice-President, W. Kerwood, Esq.; Treasurer, Mr. A. Purchase; Hon. Sec., Mr. G. F. Salter. The head-quarters are at the "Globe Hotel," Chichester.

This Society numbers over 100 members, and has a fine

stretch of water within a short distance of the club-room, well stocked with carp, bream, perch, roach, and a few tench and eels. Pike are also fairly represented. The canal from the basin to the lower lock is over three miles, and since the weed clearance by the Society in 1882 is in fine angling condition.

THE COSTA ANGLERS' CLUB.

The River Costa at Keld Head runs in considerable volume at the foot of the oolitic limestone moorlands, lying north of Pickering, in the North Riding of the County of York. In many respects it is a remarkable stream. It is of high uniform temperature, rarely below 37 degrees, consequently it never freezes, and in cold winters the condensation of vapour is a striking phenomenon, rising, as it frequently does, high into the air, and may be seen for many miles.

This high temperature naturally promotes the rapid growth of weed, and is one of the annoyances which the managing committee have to contend with in being compelled to cut and keep it under so very frequently in the height of the fishing season. On the other hand, this weed forms a capital shelter for fish, and produces a vast amount of insect food, on which young fish rapidly increase in size and condition.

The club is only a youthful institution; nevertheless, the managers have already a breeding establishment in operation, and are able to turn out annually from 15,000 to 20,000 fry, consequently the stream is becoming fairly stocked with both trout and grayling. Those killed last season, and so far as this one has progressed, have been of an average weight of $1\frac{1}{2}$ to 2 lbs., and a few 3 lbs.

Each member is limited to ten brace a day, not less than

10 inches in length, and to 20 days, angling during the season, for which he pays four guineas subscription and an entrance fee of five guineas. There are 40 subscribing members, under the presidency of the Rev. J. R. Hill, of Thornton Hall, near Pickering, a thorough sportsman and a county gentleman of the truest Yorkshire type.

The Costa receives the Pickering Beck near Kirby Misterton, and two or three miles below the united waters are discharged into the Derwent. J. H. Philips, Esq., of Scarborough, is the honorary secretary, and it was mainly through his exertions that the club was re-established some four years ago.

DERWENT ANGLERS' CLUB.

This Club preserves a stretch of water extending from two miles below East and West Ayton, near Scarborough, through the celebrated Forge Valley, thence past the highly picturesque village of Hackness, the seat of Lord Derwent, to Hill's Green Bridge at the entrance of "Barnescliffe," a wild gorge of surpassing beauty, running up and forming the eastern side of the lofty "Langdale Rigg," from the summit of which there is a magnificent view of a large expanse of country. On the east the cliffs of the sea coast, with the baronial castle keep of Scarborough standing out like a sentinel to guard that ancient borough and queen of watering places—on the south are the Great Wolds, with the bold promontories of Filey Brigg and Flamborough Head forming striking objects, whilst on the west the eye stretches away to Malton and the Howardean Hills, with the Hambleton plateau in the far distance. On the north is large expanse of moorland lying in the direction of Robin Hood's Bay, and the Peak, flanked by the railway from Pickering to Whitby, emerging from Newton Dale on to

the heights above. It is here on high ground, under the shadow of "Lilla's Cross," that the "Derwent" takes its rise; and, descending in a meandering form, with many a pretty waterfall, it traverses the monotonous expanse of moor in a south-easterly course until it meets at the foot of the upper end of Langdale Pike the "Luggerhowe" stream coming from Harwood Dale, and unitedly they enter the Barnescliffe Valley. From this point to Hill's Green Bridge is a nice stretch of stream, full of small yet toothsome trout, of which Lord Derwent is the owner, and who liberally grants permission to honest anglers. That portion of the Derwent which is preserved by the club is a pleasant fishable stream, with abundance of trout and a few grayling, though neither of them are of large size, averaging about three to the pound. The stream may be briefly described as one of alternate pool, with here and there gravelly streams, fringed on both sides with trees and bushes where trout love to hide and dwell and to watch for their daily ephemeral food. Through the Forge Valley the stream runs deep and sluggishly, but many a lusty trout lies there in ambush, only to be interviewed when there is a wind blowing up or down the valley. A practical hand then may readily fill his pannier.

Lord Derwent and Lord Londesborough are the chief proprietors, and are the liberal patrons of the Club, though there are other riparian owners, all of whom generously place their respective waters at the disposal of the members. The Derwent being at such a convenient distance from Scarborough and easily accessible by rail, are great facilities for the members reaching the stream. The Club was formed upwards of forty years ago, namely in 1839, and, from its many surroundings, has always been a popular

one, especially with the gentry residing in Scarborough. The managers have a breeding establishment at the Forge Cottages, and for many years past have turned out from 10,000 to 20,000 fry, so that the stream is kept constantly replenished with an abundant stock of fish, to supply diversion for its many members, who occasionally jostle each other—as for instance in the Mayfly season, when every one is anxious for the fray and to secure a basket. If, however, the angler should fall on an untoward day, when trout decline conclusions with his “gentle art,” he has before him magnificent scenery which will well repay him for his outing, though he may have to return home with an empty creel. T. B. Etty, Esq., of Scarborough—a relative of the distinguished painter—is the acting and obliging honorary secretary of the Club, which consists of 40 members, subscribing two guineas each annually and three guineas entrance.

THE DART DISTRICT FISHERY BOARD

Exercises certain powers of control over a defined district, the limits of which were settled by a certificate from the Secretary of State dated 26th of March, 1866, under the powers conferred by the Salmon Fishery Acts; and under the same powers the members of the Board are appointed by the Magistrates at Quarter Sessions. The Board has the power to issue licences, without which no person (not excepting owners of property) can fish. The Chairman is Jeffrey Michelmores, Esq., of Totnes, while the Hon. Secretary is Anthony Pike, Esq., of the same place.

DERWENT VALLEY ANGLING ASSOCIATION.

At a public meeting held at the Town Hall, Shotley Bridge, on Tuesday, March 9th, 1865, to consider the

propriety of forming an association for the protection of fish in the River Derwent, the late Thos. Wilson, Esq., of Shotley Hall, in the chair, it was resolved :

I. That the above Association be formed for the above object.

II. That it be governed by a president and a committee of not less than six members, with secretary and treasurer.

III. That Mr. Wilson, of Shotley Hall, be president, and that the provisional committee to carry out the resolutions of meeting should be composed of the following gentlemen, viz: Mr. John Armandale, Mr. Thos. Ramsay, Mr. Geo. Peile, Mr. Thos. Richardson, Mr. (now Dr.) Renton, the Rev. W. Cundill, Mr. Featherstonehaugh, and Mr. Thirlwell, Mr. A. Town (Hon. Treasurer), the Rev. F. B. Thompson, and Mr. Booth (Hon. Sec.).

IV. That such committee be authorised to communicate with the landed proprietors along the bank of the river, asking their co-operation, &c., and report to future meeting, together with proposed rules and regulations for working of the association.

V. That a subscription list be now opened and subscriptions solicited towards funds of the Association.

At a public meeting held on Monday, 30th October, 1865, the report was presented and rules adopted, while it was settled that fishing should commence on the 16th of March, 1866, and close on the 1st of October. Tickets 10s. each. The first subscription amounted to £32.

Since March 1879 the tickets to new members have been 5s., to old members 2s. 6d.

From report of annual meeting held in February last I find that the Society commenced earlier, viz., on March 1st instead of 16th. Since its formation 6,000 fry (*fario* and

levenensis) have been introduced in the river and tributaries. (Fishing in the latter is strictly prohibited.)

The subject of introducing grayling is postponed for the present.

THE EAST ANGLIAN PISCATORIAL SOCIETY.

This Society had its origin in the City of Norwich, and was founded by Mr. Alfred Palmer, the then proprietor of the Great Eastern Hotel. It was first started in the year 1879, and up to the present time has had a most successful career. The society consists of, and is limited to thirty members, besides several honorary members. Prominent amongst the latter is the name of Edward Birkbeck, Esq., M.P., as also the names of W. H. Grenfel, Esq., M.P. for Salisbury, and Edward Fanshaw Holley, Esq., of Gunyah Lodge, Norwich. The above gentlemen have taken a keen interest in the welfare of the Society.

The members meet once a month for the transaction of business, special meetings for readings, and "Social Board" meetings are held at intervals. The society has done much in prohibiting netting and other unfair fishing both in the rivers Yare and Bure.

THE EATON FISHING CLUB.

The club preserves about three miles of the rivers Lugg and Arrow, commencing a mile below the town of Leominster, Herefordshire. The water which runs through land belonging principally to the Earl of Meath is well stocked with both trout and grayling.

This society was originally formed some thirty-five years since, and is limited to fourteen members. Since then it has passed through various changes in rules and con-

stitution, and is now managed by a committee of local gentlemen.

THE ESK FISHERY ASSOCIATION

Was founded in the year 1866, and consists of the land-owners consenting to the preservation of their portion of the stream by the club, and persons who subscribe to the whole of the club waters. This Association has done good and important work in breeding salmon, having turned into the river not less than 100,000 fish. Last season more salmon were taken with the rod than sea-trout or bull-trout.

THE GRASSINGTON, THRESHFIELD AND LINTON ANGLING CLUB

Was commenced in 1855, for the purpose of preserving a length of about three miles of the river Wharfe near Grassington and between the Kilnsey and Burnsall angling waters. The fishing is almost entirely for trout and grayling.

The present subscription is 10s. for a season ticket, and 2s. 6d. for a day ticket. The Club is managed by a committee consisting of a president, secretary, and three other members of the club. Tickets may be obtained from the secretary, Mr. William Harker, Grassington, near Skipton, Yorkshire.

GREAT GRIMSBY ANGLING ASSOCIATION.

This Association was formed a short time back by Mr. Hollingsworth, "Mason's Arms Hotel," Grimsby. It now numbers 100 members, and has secured by rental a great part of the "South Navigation Canal." The society rents several fishing streams. The river Ancholme is within

easy reach of the vicinity of Grimsby, and contains numbers of bream, roach, perch, pike, &c. It is the property of the "Ancholme Commissioners," who issue a season ticket at the moderate charge of 5s.; it is strictly preserved, and affords excellent sport. From the docks a stream called the "Haven" runs for miles through several adjoining villages, and contains plenty of trout and roach; it is preserved in some parts by the owners of the land through which it passes. The docks abound in roach, pike, &c., and the fishing is free. The Association is managed by a president, vice-president, secretary, treasurer, and a committee of twelve members, and is in a very flourishing condition. Their head-quarters are the "Mason's Arms Hotel," Grimsby.

KING'S LYNN ANGLING ASSOCIATION.

This society was started in December 1880—the originator being H. Bradfield, Esq. It preserves the Gaywood river, and hires the Middle Level Main Drain, the Hundred Feet river, Roxham Drain, and the Drain—Downham or St. John's Eau—the Walks rivulet, Long Pond, and Lake, the latter being provided for the fishing of the inhabitants of the borough free of charge.

The Association rears large numbers of trout fry, part of which are procured from parent fish in the neighbourhood. The greater portion of the ova is hatched in the Lynn Museum—entrance to which is free—and the operation is one of great attraction to the inhabitants. The young fry is afterwards transferred to a nursery pond. Last year 15,000 fry were hatched, and this year 20,000.

The annual subscription is 5s., honorary members £1 1s. and 10s. 6d. The Hon. Sec. is H. Bradfield, Esq., of Gaywood Road, Lynn.

LIVERPOOL ANGLING ASSOCIATION. — Head-quarters, "Strawberry Hotel," West Derby Road, Liverpool.

Some four years ago a number of anglers who were in the habit of meeting at the above hotel conceived the idea of forming an angling association, and after some difficulty succeeded in their endeavour. The number of members at first was thirteen, but this has now increased to 100, with about twelve hon. members. They had great difficulty in obtaining or renting fishing waters, but have now secured the right of fishing in the reservoir of the Ruabon Water Company, which is well stocked with trout averaging half a pound each. About 2000 Lough Neagh trout have been placed in the brook leading into the reservoir as a trial, with the intention of placing some 10,000 more there if this attempt is successful. They have also got permission from the Parks Commissioners to fish in the Park lakes. The President is James Wilkinson, Esq., while the Hon. Sec. is Mr. R. Woolfall, of 27 Troughton Road.

LOWER MONNOW FISHING CLUB.

This Club is limited to twenty-five members, paying an annual subscription of £5 each, and has the fishing for about nine miles on the lower Monnow. The trout average three to the pound; fish of three and four pounds are, however, frequently caught. There are vacancies for more members. The Hon. Secretary is R. Wrightson, Esq., Newport, Monmouth.

LOWER TEIGN FISHING ASSOCIATION.

This Association was formed in February 1876, after a public meeting held at Newton Abbot on the 24th of that month. All the principal landowners on the Teign and its

tributary the Bovey gave up their fishing rights to the Society. Since then part of the Bovey has been withdrawn, and the Association right now extends for about nine miles up the Teign, and about two miles up the Bovey. Tickets are issued to the public at 10s. 6d. for the season, 5s. per month, 2s. 6d. per week, and 1s. per day; a trout licence of 2s. 6d., and a salmon licence of £1 1s., is also imposed by the board of conservators.

The Secretary is the Rev. J. Yarde, of Culver House, Chudleigh, while the Treasurer is Sidney Hacker, Esq., of Newton Abbot.

THE MARKET DEEPING ANGLING SOCIETY.

The right of fishery in the river Welland at Market Deeping extends from a point at the end of Mr. Thorpe's mill-stream to Kenulph's Stone, a distance of six miles, and formerly belonged to the Crown as Lord of the Manor of East and West Deeping. It was let until 1872 to a fisherman who netted it at all times and seasons, sparing nothing. Mr. S. B. Sharpe represented the matter to Mr. Gore, Commissioner of Her Majesty's Woods and Forests, who accordingly discharged the tenant and accepted Mr. Sharpe, in company with Mr. Holland and Mr. Molecey, of that place, as tenants. In 1875 the manor was sold, and in 1877 the right of fishery was purchased by a few local noblemen and gentlemen, consisting of the following:— Lord Kesteven, Lord Burghley, William Holland, William Beadzler Deacon, George Linnell, John Thorpe, John Molecey, Twigge Molecey, Edmund Lawlett, and Samuel Bates Sharpe, Esqs., and an angling society formed which has been eminently successful. The Welland is a very good breeding river, running over a gravel bottom, the lower parts running through low-lying lands which in winter become flooded,

and form what is called Crowland Wash, a few miles below Deeping, and there the fish, especially pike, breed in great numbers. The dace in the higher waters about Deeping are very fine and rise freely to the fly; large numbers have been caught from eight to fourteen ounces. Through the efforts of the proprietors, aided by the untiring exertions of the Hon. Sec., Mr. S. B. Sharpe (who is also on the Council of the National Fish Culture Association), the river Welland at this portion literally teems with fish. The object of the Society being "the preservation of fish for legitimate sport," and that alone, the rules are extremely liberal to anglers—the annual subscription of five shillings, for example, including the head of a family and his young children.

THE MIDDLEHAM ANGLING ASSOCIATION.

This Society was founded in 1880, and preserves the fishing on the river Cover (a tributary stream of the Yore). The water contains trout and grayling, and is rented from the lord of the manor, J. Wood, Esq. The members at present number about twenty, and pay an annual subscription of £1 1s. with an entrance fee of a like amount.

The President is S. T. Scrope, Esq. of Danby Hall, Bedale; Secretary and Treasurer, J. E. Miller, Esq., Middleham, Bedale.

THE NENE ANGLING CLUB.

This Club was established in 1856, Dr. Webster being the first President and J. Hensman, Esq., Hon. Secretary. They preserve from twelve to fourteen miles of the river Nene. The water contains jack, bream, perch, carp, &c., and large bags are frequently made. A bream of 6 lbs. and a carp of 9½ lbs. were lately taken from the water.

The annual subscriptions are £3 3s. for the whole fishery extent ; from the Paper-mills to Castle Ashby, £1 1s. ; and 10s. 6d. for the third fishery, from the Paper Mills to Billing; there being also an entrance fee of 10s. 6d. for the whole water, and 5s. for the £1 1s. preserve.

President, the Rev. H. Smyth, Little Houghton ; Hon. Sec., H. P. Hensman, Esq.

NORWICH PISCATORIAL SOCIETY.

This Society was originated by Mr. W. Capon, of Norwich. It numbers 50 fishing and a large number of honorary members. The annual subscription is 10s., hon. members 20s. The Club gives a very fine Challenge Cup, to be won twice before becoming the property of any member.

Hon. Secretary and Treasurer, Mr. W. G. Capon, Market Street, Norwich.

THE NORTHAMPTON WORKING MEN'S ANGLING CLUB

Was formed May 22nd, 1876, and now numbers 80 members ; fishes about 8 miles of private water in the Nene. Annual subscription 8s. 6d., hon. members 10s. 6d. The Society has several prize competitions during the year. Its head-quarters are at the 'Half Moon' Inn, Bridge Street. Hon. Sec., Mr. J. James, 10 Pike Lane.

NEWARK AND MUSKHAM FISHERY ASSOCIATION.

This Association was formed 1868, it has about 4½ miles of private water rented from Lord Middleton and H. Manners-Sutton, Esq. The number of members is about 70, paying a subscription of 15s. per annum for a single ticket, and £1 1s. for a family ticket. The limits of the fishery are defined as follows, and include some of the very finest

lengths on the river Trent. The "Muskham Fishery" extends on the north bank of the river from the "Fir Trees" in Kelham Lane to the fence dividing the parishes of North and South Muskham, two fields below "Toder's Holt;" and on the south bank, from the fence dividing the parishes of Kelham and South Muskham, nearly opposite the aforesaid "Fir Trees," to the fence dividing the same parishes opposite the Bottom Lock. The "Dead Water" and "Muskham Fleet" are also included in the Fishery.

The Hon. Secretary of the Association is J. Neal, Esq., of Mount Schools, Newark-on-Trent.

OTLEY ANGLING CLUB.

The Otley Angling Club was formed in 1876, principally through the kindness of Ayscough Fawkes, Esq., of Farnley Hall, who gives to the Club about six miles of fishing on one side of the river Wharfe. The number of members is limited to 30, paying an annual subscription of £3 and an entrance fee of £2. The society hatches about 26,000 trout fry annually and places them in the river. The President is Ayscough Fawkes, Esq., while the Hon. Sec. is R. M. Pratt, Esq., Otley.

THE REDDITCH PISCATORIALS.

The Club was established a short time ago to meet the requirements of the working-men anglers (who are mostly engaged in the Redditch hook, &c., manufactories). So far it has been a decided success. The subscription is 1s., with 1d. for a book of rules. The Club has been greatly assisted by several of the manufacturers giving prizes to be fished for.

President, Mr. George Welch ; Secretary, John E. Wilkes,
31 Edward Street, Redditch.

RYEDALE ANGLING CLUB.

The Ryedale Angling Club was formed June 1st., 1846, and consists of 20 members paying an annual subscription of £4 4s. and £2 2s. entrance fee. They rent from Lord Feversham the length of water from Helmsley Bridge to Newton, a distance along the stream of about 4 miles ; the fishing is restricted to artificial fly and dead minnow. The river Rye is a good trout and grayling stream, and is strictly preserved both above and below the Club water. The Honorary Secretary is Bryan Ed. Cookson, Esq., of 40 Holgate Road, York.

SHREWSBURY AND SEVERN ANGLING SOCIETY.

This Angling Society was started in March, 1882, having then 70 members, which have increased to 110 at the present time. The honour of originating it belongs chiefly to T. H. Morgan, Esq. The annual subscription is 2s. 6d., with 1s. entrance fee ; hon. members 10s. 6d. The Society has promoted an Act of Parliament to do away with netting in the part of the Severn within the limits of the borough.

President, James Watson, Esq., of Berwick Hall ; Hon. Sec. T. H. Morgan, Esq., Shrewsbury.

THE SPALDING ANGLING CLUB.

This Club was formed in the year 1864. The fishing exists in the Drains belonging to the Deeping Fen Drainage Trustees and extends over some 25 miles of water, the Society also has a reach of about four miles of the River Glen.

Tickets are issued to subscribers at the rate of £1 1s. for double tickets and 10s. 6d. for single.

The Hon. Secretary is J. G. Calthrop, Esq., of Spalding.

THE STOUR FISHING ASSOCIATION.

This Association was formed in January 1866, in the place of an old private club which had almost become extinct. They preserve part of the River Stour, containing some of the finest trout in England, and also breed artificially with success. The number of members is limited to 100, paying an annual subscription of £3 3s. to £5 5s. and an entrance fee of £10 10s.

Hon. Sec., Captain Lambert, Stanmore, Canterbury; Assistant Sec., Mr. F. G. Haines, 9 Watling Street, Canterbury.

ST. JOHN'S AMATEUR ANGLERS' ASSOCIATION.

This Association was formed about five years ago by several anglers residing at St. John's, Worcester, with a view to securing for themselves good fishing waters and to encourage sportsmanlike angling. The number of members is limited to 30, paying an annual subscription of 2s. 6d.

Hon. Sec., Arthur Hill, Fern Villa, St. John's, Worcester.

UPPER EXE FISHING ASSOCIATION.

This Association was formed in February, 1851, by the owners and occupiers of land on the river Exe, and was then called "The Occupier's Exe Fishing Association," but has since been altered to the above title. Cards for the season are issued at £1 1s. ; monthly, 10s. ; weekly, 5s. ; day, 2s. 6d. The extent of fishing is about five miles up the river Exe,

from Thorverton Bridge to near Beckleigh Bridge, and comprises the best fishing in that river.

The Hon. Secretary is W. C. James, Esq., Thorverton, Collumpton, Devon.

TRENT FISHERY BOARD OF CONSERVATORS.

The chief honour of the establishment of this important Board belongs unquestionably to Thomas Worthington, Esq., solicitor, of Derby, who in 1863, by means of a series of letters addressed to the *Derby Mercury*, called public attention to the fact that no proper steps had been taken, under the Salmon Fisheries Act of 1861, for the preservation of the Trent. At a public meeting which followed, Mr. Worthington and another gentleman, on the motion of the late Sir Oswald Mosley, Bart., were appointed the first conservators under the act. The movement greatly interested the then Lord Vernon and other fishery proprietors, amongst whom was Mr. Dennison, the then Speaker of the House of Commons. In June 1864 a meeting of fishery proprietors was held at Mr. Dennison's residence, when an association was formed, and called the "Trent Fishery Association." Mr. Thomas Worthington, and Major Scott, of Knaith Hall, near Gainsborough, were appointed joint honorary secretaries.

In 1865, the Salmon Fisheries Amendment Act having been passed, the Trent Fishery Association was duly formed into the "Trent Fishery Board," in pursuance of the act. Major Scott resigned the honorary secretaryship, and Colonel G. M. Hutton, of Gate Burton, Gainsborough, was appointed in his place, and still remains hon. secretary.

In December 1880 Mr. Worthington, in consequence of ill-health, was compelled to resign the hon. secretaryship,

and Mr. C. K. Eddowes, solicitor, Derby, was appointed clerk and solicitor in his place.

TONBRIDGE ANGLING CLUB AND FISH PRESERVATION SOCIETY.

This Society was established at Tonbridge about eight years ago to preserve the upper reaches of the Medway, and put a stop to the continuous poaching and netting which was then going on. The Society received great assistance from the riparian proprietors, and is now in a very flourishing condition. They have recently acquired "The Ballast Pit," a lake of about six acres, which it is the intention of the association to stock with trout. The annual subscription is 10s. 6d. for the whole fishery, and 5s. for part; day tickets, 1s.

President, A. T. Beeching, Esq.; Hon. Sec., Mr. E. Hollomby, Quarry Hill, Tonbridge.

UNIVERSAL ANGLING SOCIETY.

This Society was formed in 1872, and was principally composed of the former members of the "Yorkshire and Lincolnshire Angling Association," which had ceased to exist as a club in the preceding year. The association owes a great deal of its present success to the good services and management of Mr. Thomas Maplebeck, who was for several years their president. The number of members at present is eighty, paying an annual subscription of 8s. with an entrance fee of 1s.

Secretary, Mr. W. H. Barker, High Street, Hull.

THE WATFORD PISCATORS.

This Society was established in March 1882, for the purpose of putting a stop to the poaching which was going on in the public waters of the neighbourhood, and to rent

fishing for the exclusive use of its members. In May the club got under their control about half a mile of the river Colne from the railway arches to the Leathersellers' Arms, and some time afterwards secured a reach of the canal from Cassio Bridge to Beasley's Lock. The number of fishing members is limited to 50, with numerous hon. members. The annual subscription is 5s.

Hon. Sec., Mr. H. A. Vincent, 4 Carey Place, Watford.

LONDON ANGLING CLUBS.

I now come to an entirely distinct consideration of the "Angling Clubs" of London pure and simple. It is very likely that a certain class of unreflecting people, or people who don't know any better, may imagine that the sole aim and ambition attendant upon the formation or weekly gathering together of the members of an angling club is centred in the consumption of a good deal of fourpenny ale, unlimited grogs, and the strongest sort of tobacco.

Now and again it is possible, but they are very isolated instances, that this view of matters represents something like the facts of the case. More frequently such an ungenerous reading is as far wide of the mark as the North Pole is to California. Then, again, it may be asked 'What good do angling clubs effect? what are they really doing that is worth doing? and what might they not do? Truly three such queries open up a terrible vista of argument, and although the first question may be, and is, easy enough to answer, the two following must inevitably place the majority of the angling clubs, to speak simple truth, in a by no means complimentary or particularly enviable position.

What good do angling clubs effect? Well, by way of

answering that question I will endeavour to show the difference between angling clubs past and present.

At a date by no means very far antecedent there were, comparatively speaking, only a very few angling clubs in existence. Such as they were, they embraced all the best and longest-lived societies then in being, with some few of the now rapidly springing body of piscators, constantly resolving themselves into some new club, and which might, under proper skilled management, become in time a mighty host, powerful to do good.

Such angling societies as existed then, or many of the members at any rate, were anglers only in name. They recognised, save with rare exceptions, no fence seasons at all, and as to size, bagged every living thing in the shape of a fish that they could entice with either worm or gentle. It was no disgrace then for an angler proudly to display in the club room, as the result of his day's sport, such a collection of fish as nowadays he dare not even bring home. It was literally shocking in those degenerate days to see what baby fish were slaughtered. It was sad to think that men were amongst us calling themselves sportsmen—Heaven save the mark!—who were content to base their claim to the title upon the wretched laurels they might win by the production of such a tray of fish as would have almost disgraced the doughty deeds done in the days when the embryo angler sallied forth armed with a pea-stick, bent pin, some stolen cotton, and a borrowed pickle bottle. However, such were the facts, and I turn gladly to a contemplation of the picture in our own day.

That resolves itself into a totally different one. Anglers nowadays are, in the first place, restricted by most wholesome rules, which bar them from showing anything but fairly good sample fish, and in the second, I fully

believe that their latent sportsmanlike feeling has been so thoroughly developed by good example, that in many cases they would not exhibit poor specimens even if they had the chance. A very strong feeling, emanating it is only right to say with the "Gresham Angling Society," has sprung up of late years against the promulgation of "gross weight competitions," and in favour rather of specimen fish. The scale of weights has been fixed in all cases at a fair size, and in many instances some of the clubs—and notably those old Societies, "The Piscatorial Society" and "The Friendly Anglers"—fix their weight at a very high standard indeed. How different from the old days, when everything in the shape of a fish was bagged, and the waters north, south, east, and west of the compass, were slowly, it is true, but not the less surely, depleted and gradually fished out.

I may ask now, What are the London Anglers doing for the common good of their brethren? and the answer, without giving offence, which I should be sorry enough to do, is one especially difficult to shape nicely.

In the first place they have established by joint effort, spread over certain districts, three institutions by means of which cheap railway facilities have been obtained from all those companies whose permanent way leads to well-known angling resorts. These are the West Central Association of London and Provincial Angling Societies, The United London Anglers' Central Committee, and the Central Association.

In the next place, they have founded what should be known as the best and most important work that the London anglers, as a body of sportsmen, have ever attempted to give root and birth to, in the shape of "The Anglers' Benevolent Association." This has for its main object the assistance of anglers who through declining

years, or the working of that strange unwritten law which would seem to hamper some unfortunates with the unvariable and accursed sting of poverty, sink gradually into a pitiable state. Before its institution, and when a properly accredited member of an angling club fell into distress, there was nothing by way of relief save the "whip round" with its open declaration of distress, sometimes especially hurtful to a man's feelings, but which, to the credit of his comrades, they were never disposed to shirk. Now a distressed angler simply makes his case known to the Committee of that institution, and he is instantly relieved to the best of its ability.

But is this institution, which should be one of the first and most important, properly supported? No, I answer—*emphatically no*; yet the very men probably who hesitate in the time of prosperity to put their shilling into its funds are the very men who would think they were hardly dealt by if, in the hour of need, they were not offered pounds.

My friend Mr. Geen, the hard-working practical "anglers' friend," if ever man deserved the title yet, has lately written a paper, which has been read before various Angling Societies, upon "The better Organisation of the London Anglers." I had not intended to trench upon the ground he, in that admirable and sensible essay, has taken up, but he speaks so much more powerfully than my feeble pen is capable of expressing, that I shall not hesitate, with many apologies for so doing, to quote here and there his opinions, mainly as a means of strengthening my own.

Hear what he says, ye London Anglers, concerning this same "Anglers' Benevolent," and mark, learn, and inwardly digest the wisdom of his repeated warnings.

"Another fault, and not a small one, is the difficulty of getting members to join. One of the chief reasons which

caused me to work for the society was the hope that begging would be done away with. I feel certain that there have been more journeys undertaken, and more earnest pleading, and eloquent speeches made to get members to join the Anglers' Benevolent than was ever made for the needy angler under the old system.

"And what does all this begging for members produce? £37 8s. 7d.—actually a smaller sum than they took out of it. No one could possibly take exception to a single item of the expenses, yet they amount to £31 3s. 4d., which is only £5 15s. less than the members' subscriptions."

The last good working of the London anglers, or at any rate its outcome, is the establishment of the "United London Fisheries Association," having for its object the renting and stocking of various waters for the use and pleasurable enjoyment of its members.

Now the business working of these five associations means simply and totally, apart from their admirable objects, a sheer waste of both time, labour, and money. Mr. Geen's great idea, and in this I fully and entirely join issue, is that all might be comprised under one general head, and that in lieu of five sets of officers, embracing three presidents, two vice-presidents, five chairmen, five treasurers, fifteen trustees, five committees of twelve each, and five secretaries, all might be well and efficiently done by one set of officers alone, and that in opposition to the ridiculous issue of three sets of privilege tickets for railway purposes, all might be easily comprised in one, saving trouble, expense, and a lot of entirely unnecessary round-about business.

What would be the result? There would be more money at command to help the various Preservation Societies, at present greatly neglected; there would be still

more to help to stock the waters, at present absolutely in the London anglers' hands, and get them more efficiently protected and watched, and there would be still more left vested, and ready when needful, to help and assist the sacred cause of charity.

I quote Mr. Geen again, because no language of my own could make the question of how is this desirable result to be obtained more clear than he does.

He first of all tells us that there are 4117 enrolled members of one or other of these split-up associations. Some belonging to one, some to another, but few to all three combined. Upon the question of ways and means he says :—

“I have left the important matter of ways and means until the last, as I thought it best you should first be informed as to the nature and extent of my other suggestions.

“At present we pay 1s. to the association of whom we get a privilege ticket, and 1s. to the Fisheries Society; so that the yearage is now 2s. Then the Benevolent steps in and asks us to voluntarily pay them 1s. Six hundred and ninety-one out of the 4117 responded to that appeal, and paid over £37 8s. 7d. How much easier, how much fairer and more satisfactory that we should all pay 3s. I hope no one will accuse me of being unmindful of my poorer brother anglers. I would not be a party to taking a single penny unnecessarily from their pockets, and before I could bring myself to consent to make this suggestion, I had ascertained that it is the poor angler that is paying the 3s. now. I have also asked myself the question, ‘What do I offer in return?’ The answer is, your railway concessions shall be guarded, and, if possible, extended; your free rivers shall be protected, and private waters shall

be rented for you; the needy and distressed among you shall be relieved.

“Three shillings per year means a trifle more than one halfpenny a week. Many of you must have been struck with the wonderful penny’s-worth offered. Cheap travelling, good sport, pleasure and charity for one half-penny per week. Small as this sum is, it would produce £617 11s. The donations and annual subscriptions to the Benevolent amount to £65 17s. 8d., making our gross income £683 8s. 8d. Out of this sum we must pay our secretary and bailiff, vote a sum to the Benevolent committee, and provide for printing, stationery, stamps, and general expenses.

“Much will depend on our getting a good

practical secretary, whose salary I fix at

£150 per annum, payable monthly, not

yearly	£150	0	0
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Head bailiff, 30s. per week	78	0	0
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Benevolent vote (the amount expended last year)	50	0	0
---	----	---	---

Present amount paid for printing, station-

ery and stamps, £133 15s. 5d.; proposed

amount, £33 15s. 5d. (This sum

would be found ample, if not more than

sufficient, when augmented by the

numerous advertisements which a fully

paid secretary could get)	33	15	5
---------------------------------	----	----	---

Incidental expenses	20	0	0
-----------------------------	----	---	---

Total ..	£331	15	5
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Which leaves us an available balance of	£351	13	3
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“What are we going to do with this handsome sum of money? Why, give it to the Preservation Committee,

who, with the active assistance of our secretary and bailiff, and with our support and encouragement, will remove those cruel evils in our present system of preservation."

The following short particulars give some idea of the formation and history of such few of the London Angling Societies as responded to my application for them. I regret personally that they are so few, in opposition to the lengthy list of provincial societies. The regret, however keenly felt, will not unfortunately supply the deficiency.

THE PISCATORIAL SOCIETY.

In the year 1836 a few friends, who were in the habit of meeting at the "Granby Tavern," South Audley Street, Grosvenor Square, who were devoted to angling, and frequently made parties for competing in a friendly manner, resolved to form an association to take the name of "The Piscatorial Society."

This was done in October of the same year, the object of the Society being to meet their friends and associates in social conversation and harmony (religion and politics being excluded), to encourage fair angling; while a portion of the funds was to be appropriated to prizes, and forming a museum and collecting works on angling, &c. Rules were formed, and under their Secretary, the late Mr. Cotterill, the Society was launched and has sailed on progressively to the present time.

In the course of the past 47 years they have had a great many good anglers, who have contributed largely to the museum and library. The late Frank Buckland, Esq., an old member, was especially devoted to their welfare, and frequently gave a lecture on the Natural History of Fishes. He presented, in conjunction with the late H. L. Rolfe, Esq., a cast of pike, which was painted in his usual excellent

manner, forming a noble and valuable angling trophy. The late Mr. Chapman, who was Hon. Secretary for several years, contributed largely to the museum and library, and his celebrated composition of the "Fine Old Jolly Angler" was also presented to the Society. A valuable album of original sketches was presented by T. H. Parker, Esq., and another, containing comic sketches of the members of the Piscatorial Society, by B. Perelli Rocco, Esq. The library now consists of over 150 volumes, with many valuable paintings and portraits.

In 1838 the Society exerted themselves in giving assistance to the formation of the Thames Angling Preservation Society, and one of the members, the late H. Dean, was for several years secretary. The Piscatorial Society have subscribed three guineas annually to that association, independently of the subscriptions of the individual members.

The museum consists of a large number of cases, and have been exhibited at the Westminster Aquarium, for which a silver medal was awarded; also at the Fisheries Exhibition, Norwich (silver medal and £15); at the Fisheries Exhibition, Edinburgh (a gold medal), and now exhibiting at the International Fisheries Exhibition, Kensington.

The Society now holds its meetings at "Ashley's Hotel," Henrietta Street, Covent Garden, on Monday evenings at 8 o'clock.

The members number 150.

THE TRUE WALTONIANS

Was established in 1830, and the number of its members is limited to 40. It seeks rather to avoid than to court publicity, and the feeling of the society is strongly opposed to prize fishing.

Quoting from its memoirs, I find that "This society was established in the year 1830 to encourage periodical meetings of its members whereat they might reason, converse or instruct with sober pleasantry and unlicentious hilarity; to promote the principles of fair angling, to vigorously oppose every description of poaching, and to cultivate and advance brotherly and true Waltonian feeling among the members of the society and anglers generally.

It also provides for the renting and preserving, for the purposes of angling, such water or waters as may be decided upon from time to time."

THE WALTONIAN ANGLING SOCIETY.

After many removals from place to place in search of suitable head-quarters this Society settled down at last at the "Jew's Harp," Redhill Street, Regent's Park, where they now number 58 members, and under the secretaryship of Mr. J. Packman are in an extremely flourishing condition.

THE SPORTSMEN'S ANGLING CLUB

Is one numbering amongst its members many who devote themselves to other pursuits than a study of the gentle art. One of them is now lion-hunting in Africa, while several other members are fishing on far off continental waters. Its head-quarters are at the "Lady Owen's Arms," Goswell Road, and its Secretary Mr. Benjamin Denny.

THE EALING DEAN CONVIVIAL ANGLING SOCIETY

Was started in October only of last year, yet already numbers 54 members. They fish for no prizes and have no subscriptions, are very rigorous as to the size of fish shown, and support the Thames Angling Preservation

Society. I care not to say more, for if their rules are novel they are at least good.

WESTBOURNE PARK PISCATORIAL SOCIETY.

This Society, started in 1876, has gradually increased until it stands now with a list of nearly seventy names. Although in existence but seven years the walls of the club-room boast of twenty-three cases of preserved specimen fish (thirteen of the cases are now being exhibited at the Fisheries Exhibition). Amongst this number may be mentioned the following : Jack weighing 26½ lbs., a Thames Trout 6 lbs., 2 Roach 4 lbs., 1 Dace 16½ ounces, and also a very pretty Jack of 16 lbs. taken from the Regent's Canal by the late Mr. Severn (in which water he recently lost his life), 1 Bream weighing 6½ lbs., 1 pair Tench 9 lbs., and also a pair of Carp weighing 16 lbs.

I may mention that "gross weight" competitions have been entirely abolished in the Society, and none but specimen fish of the following weights are now recognised : Jack 5 lbs., Bream 3 lbs., Trout 2 lbs., Barbel 2 lbs., Chub 2 lbs., Carp 2 lbs., Tench 1½ lbs., Roach 1 lb., Rudd 1 lb. Perch 1 lb., and Dace ½ lb.

WEST LONDON ANGLING CLUB.

This Society was formed March 31, 1880, at a meeting held at the "White Bear," King Street, Hammersmith. It holds its meetings now at the "Windsor Castle," and under the secretaryship of Mr. G. S. Benham the Society is in a thoroughly sound condition.

THE HAMMERSMITH UNITED ANGLING SOCIETY

Is another excellent association of anglers possessing a splendid museum, upwards of sixty members, and under

the presidency of Mr. P. Geen and the secretaryship of Mr. J. Hoole is as flourishing as need be.

THE WOOLWICH BROTHERS ANGLING SOCIETY, AND WOOLWICH PISCATORIALS.

These are two capital clubs, numbering a fair average number of members, established in the town of Woolwich.

THE ACTON PISCATORIAL SOCIETY.

This excellent Society, small in number yet high of purpose, at its start in 1881 had very few members, yet it now musters forty to fifty. Gross weight is barred, and specimen fish are entirely sought after. Its secretary is Mr. C. Simpson, and its head-quarters the "George and Dragon," High Street, Acton.

GOLDEN BARBEL ANGLING SOCIETY.

The above Society was established in the year 1872 at the "Bear and Runner," Wells Street, Mortimer Street, by Mr. Fullerton, then a fishing-tackle maker of Wells Street, W. Dixie, the late secretary, and six or seven other gentlemen.

After some two years or so the Society was removed to the "York Minster," Foley Street, Portland Street, W., where it still remains. The Society is enrolled on the "West Central Association of London and Provincial Angling Societies," at whose meetings the Society send two delegates to represent it.

The objects of the Society are to promote the interests of its members, so far as regards angling, to assist its members to preserve specimen fish. The Society gives prizes for every species of fresh-water fish, and prizes for the three first gross weights, and one for the gross weight of pike.

THE BUCKLAND ANGLING SOCIETY

Was formed in September, 1881, and its title taken, as may be surmised, from the name of the late Mr. F. Buckland. Its head-quarters are at the "Middlesex Arms," Clerkenwell Green, and its secretary is Mr. L. V. Delean.

THE ALLIANCE ANGLING SOCIETY

Holds its meeting at the "Clerkenwell Tavern," Farringdon Road. It possesses a good museum of preserved trophies, and under the secretaryship of Mr. T. J. Cundell flourishes exceedingly.

CLERKENWELL PISCATORIAL SOCIETY.

The above Society was founded in August 1879 by the united efforts of Messrs. Stebbings, Trott and Cooper. Its head-quarters were fixed at the "White Hart," Aylesbury Street in Clerkenwell, and at the present time it has about forty members. The contribution is 12s. per annum, which sum clears all expenses. The members fish free waters only.

THE GRANGE ANGLING SOCIETY.

This Society was formed in 1882, and although only in existence for little more than twelve months, is in a highly efficient state, being both well officered and well supported. Their head-quarters are at the "Earl of Derby," Grange Road, the Society having for president W. Hosken, Esq., while its hon. secretary is Mr. William Kayes.

This ends the list of the "Angling Clubs of London." If it is "cribbed, cabined, and confined," it is not the fault of

J. P. W.



A MERMAID.

From a Picture by Otto Sinding.

SEA FABLES EXPLAINED.

BY

HENRY LEE, F.L.S., F.G.S., F.Z.S.,

SOMETIME NATURALIST OF THE BRIGHTON AQUARIUM, AND AUTHOR OF THE
'OCTOPUS, OR THE DEVIL-FISH OF FICTION AND FACT;'
'SEA MONSTERS UNMASKED,' ETC.

ILLUSTRATED.

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PREFACE.

THE little book 'Sea Monsters Unmasked,' recently issued as one of the Handbooks in connection with the Great International Fisheries Exhibition, has met with so favourable a reception, that I have been honoured by the request to continue the subject, and to treat also of some of the Fables of the Sea, which once were universally believed, and even now are not utterly extinct.

The topic is not here exhausted. Other sea fables and fallacies might be mentioned and explained; but the amount of letter-press, and the number of illustrations that can be printed without loss for the small sum of one shilling—the price at which these Handbooks are uniformly published—is necessarily limited. I have, therefore, thought it better to endeavour to make each chapter as complete as possible than to crowd into the space allotted to me a greater variety of subjects less fully and carefully discussed.

I have the pleasure of acknowledging the kind assistance I have again received in the matter of illustrations. I gratefully appreciate Mr. Murray's permission to use the woodcut of Hercules slaying the Hydra, taken from Smith's 'Classical Dictionary,' and those of the golden ornaments found by Dr. Schliemann at Mycenæ, and

figured in the very interesting book in which his excavations there are described. I have also to thank the proprietors of the *Illustrated London News*, the *Leisure Hour*, and *Land and Water*, for the use of illustrations especially mentioned in the text.

Some of the illustrations in the first edition of this book, and of 'Sea Monsters Unmasked,' having met with much commendation, I only do justice in mentioning that almost all those copied in fac-simile from old books, and in reduced size from periodicals, are the work of the Typographic Etching Company.

HENRY LEE.

SAVAGE CLUB ;

Sept. 4th, 1883.

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SEA FABLES EXPLAINED.

THE MERMAID.

NEXT to the pleasure which the earnest zoologist derives from study of the habits and structure of living animals, and his intelligent appreciation of their perfect adaptation to their modes of life, and the circumstances in which they are placed, is the interest he feels in eliminating fiction from truth, whilst comparing the fancies of the past with the facts of the present. As his knowledge increases, he learns that the descriptions by ancient writers of so-called "fabulous creatures" are rather distorted portraits than invented falsehoods, and that there is hardly one of the monsters of old which has not its prototype in Nature at the present day. The idea of the Lernean Hydra, whose heads grew again when cut off by Hercules, originated, as I have shown in another chapter, in a knowledge of the octopus; and in the form and movements of other animals with which we are now familiar we may, in like manner, recognise the similitude and archetype of the mermaid.

But we must search deeply into the history of mankind to discover the real source of a belief that has prevailed in almost all ages, and in all parts of the world, in the existence of a race of beings uniting the form of man with that of the fish. A rude resemblance between these

creatures of imagination and tradition and certain aquatic animals is not sufficient to account for that belief. It probably had its origin in ancient mythologies, and in the sculptures and pictures connected with them, which were designed to represent certain attributes of the deities of various nations. In the course of time the meaning of these was lost ; and subsequent generations regarded as



FIG. I.—NOAH, HIS WIFE, AND THREE SONS, AS FISH-TAILED DEITIES.
From a Gem in the Florentine Gallery. After Calmet.

the portraits of existing beings effigies which were at first intended to be merely emblematic and symbolical.

Early idolatry consisted, first, in separating the idea of the One Divinity into that of his various attributes, and of inventing symbols and making images of each separately ; secondly, in the worship of the sun, moon, stars, and planets, as living existences ; thirdly, in the deification of ancestors and early kings ; and these three forms were often mingled together in strange and tangled confusion.

Amongst the famous personages with whose history men were made acquainted by oral tradition was Noah. He was known as the second father of the human race, and the preserver and teacher of the arts and sciences as they existed before the Great Deluge, of which so many separate traditions exist among the various races of mankind. Consequently, he was an object of worship in many countries and under many names; and his wife and sons, as his assistants in the diffusion of knowledge, were sometimes associated with him.

According to Berosus, of Babylon,—the Chaldean priest and astronomer, who extracted from the sacred books of “that great city” much interesting ancient lore, which he introduced into his ‘History of Syria,’ written, about B.C. 260, for the use of the Greeks,—at a time when men were sunk in barbarism, there came up from the Erythrean Sea (the Persian Gulf), and landed on the Babylonian shore, a creature named Oannes, which had the body and head of a fish. But above the fish’s head was the head of a man, and below the tail of the fish were human feet. It had also human arms, a human voice, and human language. This strange monster sojourned among the rude people during the day, taking no food, but retiring to the sea at night; and it continued for some time thus to visit them, teaching them the arts of civilized life, and instructing them in science and religion.*

In this tale we have a distorted account of the life and occupation of Noah after his escape from the deluge which destroyed his home and drowned his neighbours. Oannes was one of the names under which



FIG. 2. — HEA, OR
NOAH, THE GOD
OF THE FLOOD.
K'horsabad

* Berosus, lib. i. p. 48.

he was worshipped in Chaldea, at Erech ("the place of the ark"), as the sacred and intelligent fish-god, the teacher of mankind, the god of science and knowledge. There he was also called Oes, Hoa, Ea, Ana, Anu, Aun, and Oan. Noah was worshipped, also, in Syria and Mesopotamia, and in Egypt, at "populous No,"* or Thebes—so named from "Theba," "the ark."

The history of the coffin of Osiris is another version of Noah's ark, and the period during which that Egyptian divinity is said to have been shut up in it, after it was set afloat upon the waters, was precisely the same as that during which Noah remained in the ark.

The Mexican "Coxcox," who was entitled *Huehueton-acateo-cateo-cipatli*, or "Fish-god of our flesh," also resembled Noah; for the Mexican tradition related that in a great time of flood, when the earth was covered with water, he preserved himself and his wife Xochiquetzal in a boat made out of the trunk of a cypress tree—some say on a raft of cypress wood—and peopled the world with wise and intelligent beings. Paintings representing the deluge of Coxcox have been discovered amongst the Aztecs and other nations.

In the Aztec legend of the flood, as translated by the Abbé Brasseur de Bourbourg from the Codex Chimalpopoca, *Nata* and his wife *Nena* were the persons saved, and the deluge took place on the day *Nahui-atl*. We find in this word and in the name of this central-American Noah, *Nata*, the root *Na*, to which, in all the Aryan language, is attached the meaning of water, and which, pronounced with the broad sound of the *a*, is very like Noah, or Noe.

The ancient Peruvians also had their semi-fish gods,

* Nahum iii. 8.

but the legends connected with them have not been preserved.

The North-American Indians relate that they were conducted from Northern Asia by a man-fish. Once upon a time, according to the legend, in the season of opening buds, the people of their nation were terrified by seeing a strange creature like a man riding upon the waves. He had upon his head long green hair, resembling the coarse weeds which mighty storms scatter along the margin of the strand. Upon his face, which was like that of a porpoise, he had a beard of the same colour, and they saw that from his breast down he was a fish, or rather two fishes, for each of his legs was a whole and distinct fish. He would sit for hours singing to the wondering Indians of the beautiful things he saw in the depths of the ocean, always closing his strange descriptions with the words: "Follow me, and see what I shall show you." For many suns they dared not venture upon the water, but when they became hungry they at last put to sea, and, following the man-fish, who kept close to their boat, reached the coast of America.*

Amongst the Mandans, the landing of Noah from the ark and the events of the deluge are commemorated with religious ceremonies even at the present day, and a rude image of the ark, which has been handed down from generation to generation, is still preserved amongst them.†

* 'Traditions of the North American Indians.' J. A. Jones, 1830, p. 47.

† George Catlin, in his 'North American Indians,' vol. i. p. 88, says:—"In the centre of the village is an open space, or public square, 150 feet in diameter, and circular in form, which is used for all public games and festivals, shows and exhibitions. The lodges around this

Amongst the historical chants of the Lenni-Lenape, or Delaware Indians, is one entitled the "Song of the Flood,"

open space front in, with their doors toward the centre ; and in the middle of this stands an object of great religious veneration, on account of the importance it has in connection with the annual religious ceremonies. This object is in the form of a large hogshead, some 8 or 10 feet high, made of planks and hoops, containing within it some of their choicest mysteries or medicines. They call it the 'Big Canoe.'

This is a representation of the ark, and further on, in the same volume (p. 158), Mr. Catlin describes the great annual rites and ceremonials of which it is the centre. He says :—

"On the day set apart for the commencement of the ceremonies, a solitary figure is seen approaching the village. During the deafening din and confusion within the pickets of the village, the figure discovered on the prairie continued to approach with a dignified step, and in a right line towards the village. All eyes were upon him, and he at length made his appearance within the pickets, and proceeded towards the centre of the village, where all the chiefs and braves stood ready to receive him, which they did in a cordial manner by shaking hands, recognizing him as an old acquaintance, and pronouncing his name *Nu-mokh-muck-a-nah*—the first or only man. The body of this strange personage, which was chiefly naked, was painted with white clay, so as to resemble at a distance a white man. He enters the medicine lodge, and goes through certain mysterious ceremonies. During the whole of this day *Nu-mokh-muck-a-nah* travelled through the village, stopping in front of each man's lodge, and crying until the owner of the lodge came out and asked who he was, and what was the matter. To which he replied by relating *the sad catastrophe which had happened on the earth's surface by the overflowing of the waters*, and saying that *he was the only person saved from the universal calamity* ; that he landed his big canoe on a high mountain in the west, where he now resides ; that he has come to open the medicine lodge, which must needs receive a present of an edged tool from the owner of every wigwam, that it may be sacrificed to the water, for if this is not done there will be another flood, and no one will be saved, as it was with such tools that the big canoe was made. Having visited every lodge in the village during the day, and having received such a present from each as a hatchet, a knife, &c. (which is undoubtedly always prepared ready for the occasion), he places them in the medicine lodge, and on the last day of the ceremony they are thrown into a deep place in the river—sacrificed to the Spirit of the Waters."

in which the ancestor of the new race of men is called *Nana-Bush*.*

The Chinese, in their early legends, connected their origin with a people who were destroyed by water in a tremendous convulsion of the earth. Associated with this event was a divine personage called Nin-va. In another account the name of *Nai Hoang-ti*, or *Nai Korti*, is given to the founder of Chinese civilization. In all these instances there is a remarkable resemblance between the names therein of the hero of the deluge and the Hebrew Noah.

Dagon, also — sometimes called Odacon—the great fish-god of the Philistines and Babylonians, was another phase of Oannes. “Dag,” in Hebrew, signifies “a male fish,” and “Aun” and “Oan” were two of the names of Noah. “Dag-aun” or “Dag-oan” therefore means “the fish Noah.” He was portrayed in two ways. The more ancient image of him was that of a man issuing from a fish, as described of Oannes by Berosus; but in later times it was varied to that of a man whose upper half was human, and the lower parts those of



FIG. 3.—DAGON. From a bas-relief. Nimroud.

* ‘The American Nations.’ C. S. Rafinesque, Philadelphia, 1836.

a fish. The image of Dagon which fell upon its face to the ground before "the ark of the God of Israel," was probably of this latter form, for we read * that in its fall, "the head of Dagon and both the palms of his hands were cut off upon the threshold: only the *stump* (in the margin, '*the fishy part*') of Dagon was left to him." This was evidently Milton's conception of him :

"Dagon his name ; sea-monster,
upward man
And downward fish." †

In some of the Nineveh sculptures of the fish-god the head of the fish forms a kind of mitre on the head of the man, whilst the body of the fish appears as a cloak or cape over his shoulders and



FIG. 5.—DAGON.
*From an Agate
Signet. Nineveh.*

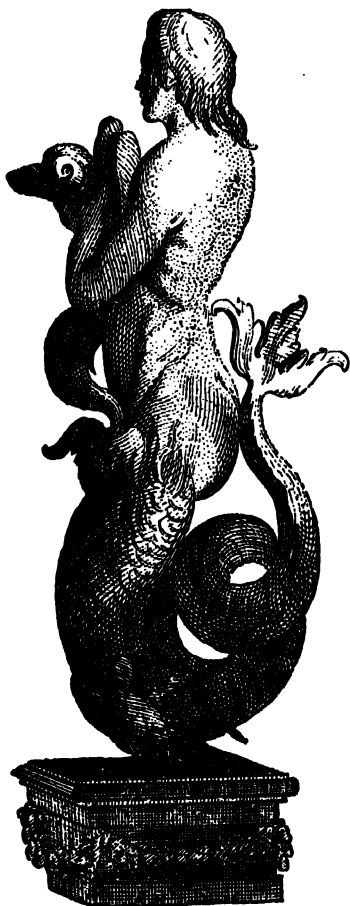


FIG. 4.—DAGON. *From Lamy's
Apparatus Biblicus.*

back. The fish varies in length; in some cases the tail almost touches the ground; in others it reaches but little below the man's waist.

* Samuel v. 4.

† 'Paradise Lost,' Book i. l. 462.

In one of his "avatars," or incarnations, the god Vishnu, "the Preserver," is represented as issuing from the mouth of a fish. He is celebrated as having miraculously preserved one righteous family, and, also, the Vedas, the sacred records, when the world was drowned. Not only is this legend of the Indian god wrought up with the history of Noah, but Vishnu and Noah bear the same name — Vishnu being the Sanscrit form of "Ish-nuh," "the man Noah." The word "avatar" also means "out of the boat." In fact the whole mythology of Greece and Rome, as well as of Asia, is full of the history and deeds of Noah, which it is impossible to misunderstand. In all the representations of a deity having a combined human and piscine form, the original idea was that of a person coming out of a fish — not being part of



FIG. 6.—FISH AVATAR OF VISHNU.

After Calmet and Maurice.

one, but issuing from it, as Noah issued from the ark. In all of them the fish denoted "preservation," "fecundity,"

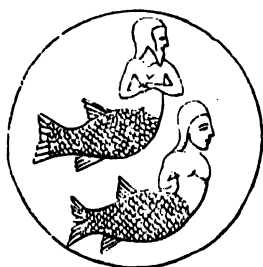


FIG. 7.—NOAH AND HIS WIFE
AS FISH-TAILED DEITIES.
On a Babylonian Seal.
After Munster.†

"plenty," and "diffusion of knowledge." * As the image was not the effigy of a divine personage, but symbolized certain attributes of Divinity, its sex was comparatively unimportant ; although it is possible that, combined with the fecundity of the fish, the idea of Noah's wife, as the second mother of all subsequent generations, according to the widely-spread and accepted traditions of the

Deluge, may have influenced the impersonation.

Atergatis, the far-famed goddess of the Syrians, was also a fish-divinity. Her image, like that of Dagon, had at first a fish's body with human extremities protruding from it ; but in the course of centuries it was gradually altered to that of a being the upper portion of whose body was that of a woman and the lower half that of a fish. Gatis was a powerful queen of Sidon, and mother of Semiramis. She received the title of "Ater," or "Ader," "the Great," for the benefits she conferred on her people ; one of these benefits being a strict conservation of their fisheries, both from their own imprudent use, and from foreign

* Some writers are of the opinion that the legend of Oannes contains an allusion to the rising and setting of the sun, and that his semi-piscine form was the expression of the idea that half his time was spent above ground, and half below the waves. The same commentators also regard all the "civilizing" gods and goddesses as, respectively, solar and lunar deities. A double character in one impersonation is so common in ancient mythology, and the attributes symbolized in the worship of Noah and the sun are so nearly alike, that the two interpretations are not incompatible.

† From an electrotype kindly presented to me by Messrs. W. and R. Chambers, Edinburgh.

interference. She issued an edict that no fish should be eaten without her consent, and that no one should take fish in the neighbouring sea without a licence from herself. It is not improbable that she and her celebrated daughter, who is said by Ovid and others to have been the builder of the walls of Babylon, were worshipped together; for that Atergatis was the same as the fish-goddess Ashteroth, or Ashtoreth, "the builder of the encompassing wall," we have, amongst other proofs, a remarkable one in Biblical history. In the first book of Maccabees v. 43, 44, we read that "all the heathen being discomfited before him (Judas Maccabeus) cast away their weapons, and fled unto the temple that was at *Carnaim*. But they took the city, and burned the temple with all that were therein. Thus was *Carnaim* subdued, neither could they stand any longer before Judas." In the second book of Maccabees xii. 26, we are told that "Maccabeus marched forth to *Carnion*, and to the temple of *Atergatis*, and there he slew five and twenty thousand persons." In Genesis xiv. 5, this city and temple are referred to as "*Ashteroth Karnaim*."

Fig. 8 is a representation of Atergatis on a medal coined at Marseilles. It shows that when the Phœnician colony from Syria, by whom that city was founded, settled there, they brought with them the worship of the gods of their country.



FIG. 8.—ATERGATIS.
From a Phœnician coin.

Atergatis was worshipped by the Greeks as Derceto and Astarte. Lucian writes* :—"In Phœnicia I saw the image of Derceto, a strange sight, truly! For she had the half of a woman, and from the thighs downwards a fish's tail."

* 'Opera Omnia,' tom. ii. p. 884, edit. Bened. de Deâ Syr.

Diodorus Siculus describes (lib. ii.) the same deity, as represented at Ascalon, as "having the face of a woman, but all the rest of the body a fish's." And this very same image at Ascalon, which Diodorus calls Derceto, or Atergatis, is denominated by Herodotus* "the celestial Aphrodite," who was identical with the Cyprian and Roman



FIG. 9.—VENUS RISING FROM THE SEA, SUPPORTED BY TRITONS.
After Calmet.

Venus. Of all the sacred buildings erected to the goddess, this temple was by far the most ancient ; and the Cyprians themselves acknowledged that their temple was built after the model of it by certain Phœnicians who came from that part of Syria.

Thus the worship of Noah, as the second father of man-

* ἐσύλησαν τῆς Οὐρανίης Ἀφροδίτης τὸ ἱρόν.—Lib. i. cap. cv.

kind, the repopulator of the earth, passed through various phases and transformations till it merged in that of Venus, who rose from the sea, and was regarded as the representative of the reproductive power of Nature—the goddess whom Lucretius thus addressed :

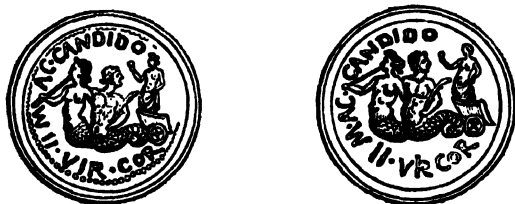
“Blest Venus ! Thou the sea and fruitful earth
Peoplest amain ; to thee whatever lives
Its being owes, and that it sees the sun :”

and to whom refers the passage in the Orphic hymn :

“From thee are all things—all things thou producest
Which are in heaven, or in the fertile earth,
Or in the sea, or in the great abyss.”

Under this latter phase—the impersonation of Venus—the fish portion of the body was discarded, and the cast-off form was allotted in popular credence to the Tritons—minor deities, who acknowledged the supremacy of the goddess, and were ready to render her homage and service by bearing her in their arms, drawing her chariot, etc., but who still possessed considerable power as sea-gods, and could calm the waves and rule the storm, at pleasure.

FIG. II.



VENUS DRAWN IN HER CHARIOT BY TRITONS. *From two Corinthian coins.*

Figs. 10 and 11 are from two Corinthian medals, each shewing Venus in a car or chariot drawn by Tritons, one male, the other female. On the obverse of Fig. 10 is the

head of Nero, and on that of Fig. 11 the head of his grandmother Agrippina.*

From the very earliest period of history, then, the conjoined human and fish form was known to every generation of men. It was presented to their sight in childhood by sculptures and pictures, and was a conspicuous object in their religious worship. By the lapse of time its original import was lost and debased; and, from being an emblem and symbol, it came to be accepted as the

* It is worthy of note that the fish was also adopted as an emblem by the early Christians, and was frequently sculptured on their tombs as a private mark or sign of the faith in which the person there interred had died. It alluded to the letters which composed the Greek word *Ιχθυσ* ("a fish") forming an anagram, the initials of words which conveyed the following sentiment: *Ιησους*, Jesus; *Χριστος*, Christ; *Θεου*, of God; *Υιος*, Son; *Σωτηρ*, Saviour. But it doubtless bore, also, the older meaning of "preservation" and "reproduction," of which the fish was the symbol, and betokened a belief in a future resurrection, as Noah was preserved to dwell in, and populate, a new world. In 'Sea Monsters Unmasked,' page 55 [page 381 of this volume] I gave a figure, copied by permission from the *Illustrated London News*, of a rough sculpture in the Roman catacombs, of Jonah being disgorged by a sea-monster. Near to it was found, on another Christian tomb, one of these designs of the "fish;" and it is not a little curious that, whereas the animal depicted as casting forth Jonah is not a whale, but a sea-serpent, or dragon, the *ichtheus* in this instance is apparently not a fish, but a seal.

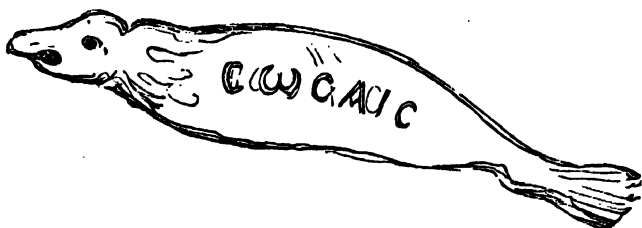


FIG. 12.—CHRISTIAN SYMBOL. *From the Catacombs at Rome.*

The article referred to appeared in the *Illustrated London News* of February 3rd, 1872, and the woodcut (Fig. 12), an electrotype of which was most kindly presented to me by the proprietors of that paper, was one of the sketches that accompanied it.

corporeal shape and structure of actually-existent sea-deities, who might present themselves to the view of the mariner, in visible and tangible form, at any moment. Thus were men trained and prepared to believe in mermen and mermaids, to expect to meet with them at sea, and to recognise as one of them any animal the appearance and movements of which could possibly be brought into conformity with their pre-conceived ideas.

Accordingly, and very naturally, we find that from north to south this belief has been entertained. Megasthenes, who was a contemporary of Aristotle, but his junior, and whose geographical work was probably written at about the period of the great philosopher's death, reported that the sea which surrounded Taprobana, the ancient Ceylon, was inhabited by creatures having the appearance of women. Ælian stated that there were "whales," or "great fishes," having the form of satyrs. The early Portuguese settlers in India asserted that true mermen were found in the Eastern seas, and old Norse legends tell of submarine beings of conjoined human and piscine form, who dwell in a wide territory far below the region of the fishes, over which the sea, like the cloudy canopy of our sky, loftily rolls, and some of whom have, from time to time, landed on Scandinavian shores, exchanged their fishy extremities for human limbs, and acquired amphibious habits. Not only have poets sung of the wondrous and seductive beauty of the maidens of these aquatic tribes, but many a Jack tar has come home from sea prepared to affirm on oath that he has seen a mermaid. To the best of his belief he has told the truth. He has seen some living being which looked wonderfully human, and his imagination, aided by an inherited superstition, has supplied the rest.

Before endeavouring to identify the object of his delusion, it may be well to mention a few instances of the supposed appearance of mermen and mermaidens in various localities.

Pliny writes : *

“When Tiberius was emperor, an embassy was sent to him from Olyssippo (Lisbon) expressly to inform him that a Triton, which was recognised as such by its form, had shown itself in a certain cave, and had been heard to produce loud sounds on a conch-shell. The Nereid, also, is not imaginary : its body is rough and covered with scales, but it has the appearance of a human being. For one was seen upon the same coast ; and when it was dying those dwelling near at hand heard it moaning sadly for a long time. And the Governor of Gaul wrote to the divine Augustus that several Nereids had been found dead upon the shore. I have many informants—illustrious persons in high positions—who have assured me that they saw in the Sea of Cadiz a merman whose whole body was exactly like that of a man, that these mermen mount on board ships by night, and weigh down that end of the vessel on which they rest, and that if they are allowed to remain there long they will sink the ship.”

Ælian in one of his short, jerky, disconnected chapters, † which rarely exceed a page in length, and some of which only contain two lines, writes :

“It is reported that the great sea which surrounds the island of Taprobana (Ceylon) contains an immense multitude of fishes and whales, and some of them have the heads of lions, panthers, rams, and other animals ; and (which is more wonderful still) some of the cetaceans have the form of satyrs. There are others which have the face of a woman, but prickles instead of hair. In addition to these, it is said there are other creatures of so strange and monstrous a kind that it would be impossible exactly to explain their appearance without the aid of a skilfully drawn picture : these have elongated and coiled tails, and, for feet, have claws‡ or fins. And I hear that in the same sea there are great amphibious beasts which are gregarious, and live on

* *Naturalis Historia*, lib. ix. cap. v.

† *De Naturâ Animalium*, lib. xvi. cap. xviii.

‡ “*Forfices*,” literally “shcars,” or “nippers,” like the claws of a lobster.

grain, and by night feed on the corn crops and grass, and are also very fond of the ripe fruit of the palms. To obtain these they encircle in their embrace the trees which are young and flexible, and, shaking them violently, enjoy the fruit which they thus cause to fall. When morning dawns they return to the sea, and plunge beneath the waves."

Ælian seems to have derived this information from Megasthenes, already referred to; but in another chapter,* he writes with greater certainty concerning these semi-human whales, and claims divine authority for his belief in the existence of tritons.

"Although," he says, "we have no rational explanation nor absolute proof of that which fishermen are said to be able to affirm concerning the form of the tritons, we have the sworn testimony of many persons that there are in the sea cetaceans which from the head down to the middle of the body resemble the human species. Demostratus, in his works on fishing, says that an aged triton was seen near the town of Tanagra, in Boeotia, which was like the drawings and pictures of tritons, but its features were so obscured by age, and it disappeared so quickly, that its true character was not easily perceptible. But on the spot where it had rested on the shore were found some rough and very hard scales which had become detached from it. A certain senator—one of those selected by lot to carry on the administration of Achaia and the duties of the annual magistracy" (the mayor, in fact)—"being anxious to investigate the nature of this triton, put a portion of its skin on the fire. It gave out a most horrible odour; and those standing by were unable to decide whether it belonged to a terrestrial or marine animal. But the magistrate's curiosity had an evil ending, for very soon afterwards, whilst crossing a narrow creek in a boat, he fell overboard and was drowned; and the Tanagreans all regarded this as a judgment upon him for his crime of impiety towards the triton—an interpretation which was confirmed when his decomposing body was cast ashore, for it emitted exactly the same odour as had the burned skin of the triton. The Tanagreans and Demostratus explain whence the triton had strayed, and how it was stranded in this place. I believe that tritons exist, and I reverentially produce as my witness a most veracious god—namely, Apollo Didymæus, whom no man in his senses would presume to regard as unworthy of

* Lib. xiii. cap. xxi.

credit. He sings thus of the triton, which he calls the sheep of the sea :

*'Dum vocale maris monstrum natst æquore triton
Neptuni pecus, in funes forte incidit extra
Demissos navim',"*

which I venture to translate as follows :

A triton, vocal monster of the deep,
One of a flock of Neptune's scaly sheep,
Was caught, as o'er the wat'ry plain he strayed,
By lines which fishers from their boat had laid.

"Therefore," Ælian concludes, "if he, the omniscient god, pronounces that there are tritons, it does not behove us to doubt their existence."

Sir J. Emmerson Tennent, in his 'Natural History of Ceylon,' quoting from the *Histoire de la Compagnie de Jésus*, mentions that the annalist of the exploits of the Jesuits in India gravely records that seven of these monsters, male and female, were captured at Manaar, in 1560, and carried to Goa, where they were dissected by Demas Bosquez, physician to the Viceroy, "and their internal structure found to be in all respects conformable to the human." He also quotes François Valentijn, one of the Dutch colonial chaplains, who, in his account of the Natural History of Amboyna,* embodied in his great work on the Netherlands' possessions in India, published in 1727,† devoted the first section of his chapter on the fishes of that island to a minute description of the "Zee-Menschen," "Zee-Wyven," and mermaids, the existence of which he warmly insists on as being beyond cavil. He relates that in 1653, when a lieutenant in the Dutch service was leading a party of soldiers along the sea-shore in Amboyna, he and

* One of the Dutch spice-islands in the Banda Sea, between Celebes and Papua.

† *Beschrijving van Oud en Nieuw Oost-Indien*, etc., 5 vols. folio, Dordrecht and Amsterdam, 1727, vol. iii. p. 330.

all his company saw two mermen swimming at a short distance from the beach.

"They had long and flowing hair of a colour between grey and green, and from their swimming side by side it was presumed that they were male and female. Six weeks afterwards the creatures were again seen by him and more than fifty witnesses, at the same place, by clear daylight. If any narrative in the world," adds Valentijn, "deserves credit it is this; since not only one, but two mermen together were seen by so many eye-witnesses. Should the stubborn world, however, hesitate to believe it, it matters nothing, as there are people who would even deny that such cities as Rome, Constantinople, or Cairo, exist, merely because they themselves have not happened to see them. But what are such incredulous persons," he continues, "to make of the circumstance recorded by Albrecht Herport* in his account of India, that a merman was seen in the water near the church of Táquan on the morning of the 29th of April, 1661, and a mermaid at the same spot the same afternoon? Or what do they say to the fact that in 1714 a mermaid was not only seen but captured near the island of Boero, five feet, Rhineland measure, in height; which lived four days and seven hours, but, refusing all food, died without leaving any intelligible account of herself?"†

This last example is said to have been taken in 1712 by a district visitor of the church, who presented it to the Governor Vander Stell. Of this "well-authenticated" specimen Valentijn gives, on a large uncoloured plate, an

* *Itinerarium Indicum*, Berne, 1669.

† Valentijn's arguments are as amusingly quaint as the description given by Stow, in his 'Annals' (p. 157), from the 'Chronicle' of Radulphus Coggeshale, of a merman taken on the coast of Suffolk in the time of Henry II. "Neare unto Orford in Suffolk," he writes, "certain fishers of the sea tooke in their nets a fish having the shape of a man in all points; which fish was kept by Bartholomew de Glaunville, custos of the castle of Orford, in the same castle by the space of six moneths and more, for a wonder. He spake not a word. All manner of meates he did eate, but, most greedily, raw fish, after he had crushed out the moisture. Oftentimes he was brought to the church, where he shewed no signs of adoration. At length he stole away to sea, and never after appeared."

elaborate portrait amongst those of the most remarkable fishes of the island.*

This plate and the others in the third volume of his fine work, in which the fishes of the Bornean Archipelago are depicted in gorgeous hues, are copied in smaller size from a series of drawings from nature by Samuel Fallours, which had been previously published in 1717 by Louis Renard, in two handsome volumes, dedicated by him to



FIG. 13.—MERMAID AND FISHES OF AMBOYNA. *After Valentijn.*

King George III. of England. These plates are tinted by hand in such resplendent colours that the editor felt it necessary to obtain certificates from clergymen and others that they were true to Nature, and that the brilliancy of the coloration was not exaggerated. Amongst them is the picture of the mermaid reproduced by Valentijn, and the following description is given of it.

* With the permission and assistance of Messrs. Longman, the accompanying wood-cut of this picture, and that of the Dugong, on page 231, are copied from Sir J. Emerson Tennent's book published in 1861.

“Zee-wyf. A monster resembling a Siren taken on the coast of the Island of Borné or Boeren, in the department of Amboyna. It was fifty-nine inches long, and of the thickness of an eel of proportionate size. It lived on land, in a large tub full of water, during four days and seven hours. It occasionally uttered little cries, like those of a mouse. It would not take food, although small fishes, mollusks, crabs, crayfishes, &c., were placed before it. After its death some excrements, like those of a cat, were found in its tub.”*

The Emperor Peter the Great of Russia, happening to visit Renard, who was then the British representative at Amsterdam, whilst he was preparing these plates for publication, saw and admired them, and was so much interested by the figure of the mermaid that he expressed a desire to know more about it, and to have some confirmation of the description given of it. Renard accordingly wrote at once (on the 17th of December, 1716) to Valentijn, who had returned from the Indies, and was then a minister of the gospel at Dordrecht, informing him that he was instructed to apply to him by the Czar, who thought it possible that the mermaid might have been sent to him from Amboyna by the governor, Vander Stell. Valentijn replied that it was not impossible that, after he had left Amboyna, the mermaid might have been seen by Fallours, but that, up to that date, he had neither seen nor heard of the original of the drawing enclosed in Renard's letter. But he assured his correspondent that there are such monsters, and, in proof thereof, declared that in addition to other trustworthy evidence, which he mentioned,

“He could himself affirm that, during his voyage home from the East, he saw on the 1st of May, 1714, in lat. $12^{\circ} 18'$, and on the meridian, during clear, calm weather, and at a distance of only three or four ships' lengths, a monster which was apparently a sea-man. It

* *Poissons, Ecrevisses, et Crabbes des Isles Moluques et Terres Australes.* L. Renard. Amsterdam.

was of a 'sea-grey' colour, stood well up out of the water, and seemed to have on its head a kind of fisherman's cap made of moss. All the ship's crew saw it also. Although its back was towards them, it perceived that they were approaching too near, and dived suddenly beneath the surface, and was seen no more."

To complete his proofs of the existence of mermen and merwomen, Valentijn, in his subsequently published work, points triumphantly to the historical fact that in Holland, in the year 1404, a mermaid was driven, during a tempest, through a breach in the dyke of Edam, in West Friesland, and was taken alive in the lake of Purmer. Some girls going in a boat to milk their cows observing her in the shallow water, and embarrassed in the mud, took her home, dressed her in female attire, and taught her to spin.* Thence she was taken to Haarlem, where she lived for several years, always showing a strong inclination for water, and where, several years after, she died in the Roman Catholic faith;—"but this," says the pious Calvinistic chaplain, "in no way militates against the truth of her story." The worthy minister citing the authority of various writers as proof that mermaids had in all ages been known in Gaul, Naples, Epirus and the Morea, comes to the conclusion that as there are "sea-cows," "sea-horses," "sea-dogs," as well as "sea-trees," and "sea-flowers," which he himself had seen, there are no reasonable grounds for doubt that there may also be "sea-maidens" and "sea-men."

In an early account of Newfoundland,† Whitbourne describes a "maremaid or mareman," which he had seen "within the length of a pike," and which "came swimming swiftly towards him, looking cheerfully on his face, as it had been a woman. By the face, eyes, nose, mouth, chin, ears, neck and forehead, it appeared to be so beautiful, and in

* Parival's *Delices de Hollande*.

† Whitbourne's 'Discourse of Newfoundland.'

those parts so well proportioned, having round about the head many blue streaks resembling hair, but certainly it was no hair. The shoulders and back down to the middle were square, white, and smooth as the back of a man, and from the middle to the end it tapered like a broad-hooked arrow." The animal put both its paws on the side of the boat wherein its observer sat, and strove much to get in, but was repelled by a blow.

In 1676, a description was given by an English surgeon named Glover, of an animal of this kind. The author did not designate it by any name, but his account of it was communicated to the Royal Society, and was duly recorded in the *Philosophical Transactions*.*

"About three leagues from the mouth of the river Rappahannock, in America, while alone in a vessel, I observed, at the distance of about half a stone-throw," he says, "a most prodigious creature, much resembling a man, only somewhat larger, standing right up in the water, with his head, neck, shoulders, breast and waist, to the cubits of his arms, above water, and his skin was tawny, much like that of an Indian; the figure of his head was pyramidal and sleek, without hair; his eyes large and black, and so were his eyebrows; his mouth very wide, with a broad black streak on the upper lip, which turned upwards at each end like mustachios. His countenance was grim and terrible. His neck, shoulders, arms, breast and waist, were like unto the neck, arms, shoulders, breast and waist of a man. His hands, if he had any, were under water. He seemed to stand with his eyes fixed on me for some time, and afterwards dived down, and, a little after, rose at somewhat a greater distance, and turned his head towards me again, and then immediately fell a little under water, that I could discern him throw out his arms and gather them in as a man does when he swims. At last, he shot with his head downwards, by which means he cast his tail above the water, which exactly resembled the tail of a fish, with a broad fane at the end of it."

Dr. John Hill tells us † that soon after the publication of

* Glover's 'Account of Virginia,' ap. Phil. Trans. vol. xi. p. 625.

† 'A Review of the Works of the Royal Society of London,' 1751, p. 96.

this "transaction" it was ascertained that "the creature was no other than an Indian of the country diverting himself with swimming, and having a high cap upon his head made of split wood, in the manner of our basket-work, to keep up his hair."

Thormodus Torfæus* maintains that mermaids are found on the south coast of Iceland, and, according to Olafsen,† two have been taken in the surrounding seas, the first in the earlier part of the history of that island, and the second in 1733. The latter was found in the stomach of a shark. Its lower parts were consumed, but the upper were entire. They were as large as those of a boy eight or nine years old. Both the cutting teeth and grinders were long and shaped like pins, and the fingers were connected by a large web. Olafsen was inclined to believe that these were human remains, but the islanders all firmly maintained that they were part of a "marmennill," by which name the mermaid is known among them.

Of course the worthy bishop of Bergen, Pontoppidan, has something to tell us about mermaids in his part of the world.

"Amongst the sea monsters," he says,‡ "which are in the North Sea; and are often seen, I shall give the first place to the Hav-manden, or merman, whose mate is called Hav-fruen, or mermaid. The existence of this creature is questioned by many, nor is it at all to be wondered at, because most of the accounts we have had of it are mixed with mere fables, and may be looked upon as idle tales."

As such he regards the story told by Jonas Ramus in his 'History of Norway,' of a mermaid taken by fishermen at Hordeland, near Bergen, and which is said to have sung an unmusical song to King Hiorlief. In the same category

* *Historia rerum Nprvegicarum.*

† *Voyage en Islande*, tom. iii. p. 223.

‡ 'Natural History of Norway,' vol. ii. p. 190.

he places an account given by Besenius in his life of Frederic II. (1577), of a mermaid that called herself Isbrandt, and held several conversations with a peasant at Samsøe, in which she foretold the birth of King Christian IV., "and made the peasant preach repentance to the courtiers, who were very much given to drunkenness." Equally "idle" with the above stories is, in his opinion, another, extracted from an old manuscript still to be seen in the University Library at Copenhagen, and quoted by Andrew Bussæus (1619), of a merman caught by the two senators, Ulf Rosensparre and Christian Holch, whilst on their voyage home to Denmark from Norway. This sea-man frightened the two worshipful gentlemen so terribly that they were glad to let him go again; for as he lay upon the deck he spoke Danish to them, and threatened that if they did not give him his liberty "the ship should be cast away, and every soul of the crew should perish."

"When such fictions as these," says Pontoppidan, "are mixed with the history of the merman, and when that creature is represented as a prophet and an orator; when they give the mermaid a melodious voice, and tell us that she is a fine singer, we need not wonder that so few people of sense will give credit to such absurdities, or that they even doubt the existence of such a creature." The good prelate, however, goes on to say that "whilst we have no ground to believe all these fables, yet, as to the existence of the creature we may safely give our assent to it," and, "if this be called in question, it must proceed entirely from the fabulous stories usually mixed with the truth." Like Valentijn, he argues that as there are "sea-horses," "sea-cows," "sea-wolves," "sea-dogs," "sea-hogs," &c., it is probable, from analogy, that "we should find in the ocean a

fish or creature which resembles the human species more than any other." As for the objection "founded on self-love and respect to our own species which is honoured with the image of God, who made man lord of all creatures, and that, consequently, we may suppose he is entitled to a noble and heavenly form which other creatures must not partake of," he thinks "its force vanishes when we consider the form of apes, and especially of another African creature called 'Quoyas Morrov' described by Odoard Dapper in his work on Africa," and which appears to have been a chimpanzee. Pontoppidan regarded it as being the Satyr of the ancients. He therefore claims that "if we will not allow our Norwegian Hastromber the honourable name of merman, we may very well call it the 'Sea-ape,' or the 'Sea-Quoyas-Morrov,'" especially as the author already quoted says that, "in the Sea of Angola mermaids are frequently caught which resemble the human species. They are taken in nets, and killed by the negroes, and are heard to shriek and cry like women."

The Bishop adds that in the diocese of Bergen, as well as in the manor of Nordland, there were hundreds of persons who affirmed with the strongest assurances that they had seen this kind of creature; sometimes at a distance and at other times quite close to their boats, standing upright, and formed like a human creature down to the middle—the rest they could not see—but of those who had seen them out of water and handled them he had not been able to find more than one person of credit who could vouch it for truth. This informant, "the Reverend Mr. Peter Angel, minister of Vand-Elvens Gield, on Suderoe," assured his bishop, when he was on a visitation journey, that

"In the year 1719, he (being then about twenty years old) saw what

is called a merman lying dead on a point of land near the sea, which had been cast ashore by the waves along with several sea-calves (seals), and other dead fish. The length of this creature was much greater than what has been mentioned of any before, namely, above three fathoms. It was of a dark grey colour all over ; in the lower part it was like a fish, and had a tail like that of a porpoise. The face resembled that of a man, with a mouth, forehead, eyes, etc. The nose was flat, and, as it were, pressed down to the face, in which the nostrils were very visible. The breast was not far from the head ; the arms seemed to hang to the side, to which they were joined by a thin skin, or membrane. The hands were, to all appearance, like the paws of a sea-calf. The back of this creature was very fat, and a great part of it was cut off, which, with the liver, yielded a large quantity of train-oil."

The author then quotes a description by Luke Debes* of a mermaid seen in 1670 at Faroe, westward of Qualboe Eide, by many of the inhabitants, as also by others from different parts of Suderoe. She was close to the shore, and stood there for two hours and a half, and was up to her waist in water. She had long hairs on her head, which hung down to the surface of the water all round about her, and she held a fish in her right hand.

Pontoppidan mentions other instances of similar appearances, and says that the latest he had heard of was of a merman seen in Denmark on the 20th of September, 1723, by three ferrymen who, at some distance from the land, were towing a ship just arrived from the Baltic. Having caught sight of something which looked like a dead body floating on the water, they rowed towards it, and there, resting on their oars, allowed it to drift close to them. It sank, but immediately came to the surface again, and then they saw that it had the appearance of an old man, strong-limbed, and with broad shoulders, but his arms they could not see. His head was small in proportion to his body,

* *Feroa Reserata*, or Description of the Feroe Islands. 8vo. Copenhagen, 1673.

and had short, curled, black hair, which did not reach below his ears; his eyes lay deep in his head, and he had a meagre and pinched face, with a black, coarse beard, that looked as if it had been cut. His skin was coarse, and very full of hair. He stood in the same place for half a quarter of an hour, and was seen above the water down to his breast: at last the men grew apprehensive of some danger, and began to retire; upon which the monster blew up his cheeks, and made a kind of roaring noise, and then dived under water, so that they did not see him any more. One of them, Peter Gunnersen, related (what the others did not observe) that this merman was, about the body and downwards, quite pointed, like a fish. This same Peter Gunnersen likewise deposed that "about twenty years before, as he was in a boat near Kulleor, the place where he was born, he saw a mermaid with long hair and large breasts." He and his two companions were, by command of the king, examined by the burgomaster of Elsinour, Andrew Bussæus, before the privy-councillor, Fridrich von Gram, and their testimony to the above effect was given on their respective oaths.

Brave old Henry Hudson, the sturdy and renowned navigator, who thrice, in three successive years, gave battle to the northern ice, and was each time defeated in his endeavour to discover a north-west or north-east passage to China, though he stamped his name on the title-page of a mighty nation's history, records the following incident:—

"This evening (June 15th) one of our company, looking overboard, saw a mermaid, and, calling up some of the company to see her, one more of the crew came up, and by that time she was come close to the ship's side, looking earnestly on the men. A little after a sea came and overturned her. From the navel upward, her back and breasts were like a woman's, as they say that saw her; her body as big as one of us, her skin very white, and long hair hanging down

behind, of colour black. In her going down they saw her tail, which was like the tail of a porpoise and speckled like a mackerel's. Their names that saw her were Thomas Hilles and Robert Rayner."

Steller, who was a zoologist of some repute, reported having seen in Behrings Straits a strange animal, which he called a "sea-ape," and in which one might almost recognise Pontoppidan's "Sea-Quoyas-Morrov." It was about five feet long, had sharp and erect ears and large eyes, and on its lips a kind of beard. Its body was thick and round, and tapered to the tail, which was bifurcated, with the upper lobe longest. It was covered with thick hair, grey on the back, and red on the belly. No feet nor paws were visible. It was full of frolic, and sported in the manner of a monkey, swimming sometimes on one side of the ship and sometimes on the other. It often raised one-third of its body out of the water, and stood upright for a considerable time. It would frequently bring up a sea-plant, not unlike a bottle-gourd, which it would toss about and catch in its mouth, playing numberless fantastic tricks with it.

But it is probable that Steller afterwards recognised the animal, which he at the time compared to the ape; for he gives the following description of the sea-otter, which is now so rare and shy, but which in his time, and on the previously unvisited islands in Behring's Sea, was both common and free from timidity at the sight of man.

"With respect to playfulness," he says, "it surpasses every other animal that lives either in the sea or on the land. When it comes up out of the sea it shakes the water from its fur, and dresses it, as a cat does its head with its fore-paws, stretches its body, arranges its hair, throws its head this way and that, contemplating itself and its beautiful fur with evident satisfaction. The animal is so much taken up with this dressing of itself, that while thus employed it may be easily approached and killed. If it eludes an attack it makes the most

laughable gestures to the hunter. It looks at him, placing one foot above the head, as if to protect it from the sunlight, throws itself on its back, and, turning to its enemy, as if in scorn, scratches itself on the belly and legs. The female is very fond of her young. When attacked she never leaves it in the lurch, and when danger is not near she plays with it in a thousand ways, throws it up in the air, and catches it in her fore-feet like a ball, swims about with it in her bosom, throws it away now and then, to let it exercise itself in the art of swimming, but takes it to herself with caresses when it is tired."

Accounts somewhat similar to that of Steller have been brought from the Southern Hemisphere, two, at least, of which are worth transcribing.

Captain Colnett, in his 'Voyage to the South Atlantic,' says :—

"A very singular circumstance happened off the coast of Chili, in lat. 24° S., which spread some alarm amongst my people, and awakened their superstitious apprehensions. About 8 o'clock in the evening an animal rose alongside the ship, and uttered such shrieks and tones of lamentation, so much like those produced by the female human voice when expressing the deepest distress, as to occasion no small degree of alarm among those who first heard it. These cries continued for upwards of three hours, and seemed to increase as the ship sailed from it. I never heard any noise whatever that approached so near those sounds which proceed from the organs of utterance in the human species."

Captain Weddell, in his 'Voyage towards the South Pole' (p. 143), writes that one of his men, having been left ashore on Hall's Island to take care of some produce, heard one night about ten o'clock, after he had lain down to rest, a noise resembling human cries. As daylight does not disappear in those latitudes at the season in which the incident occurred, the sailor rose and searched along the beach, thinking that, possibly, a boat might have been upset, and that some of the crew might be clinging to the detached rocks.

“ Roused by that voice of silver sound,
From the paved floor he lightly sprung,
And, glaring with his eyes around,
Where the fair nymph her tresses wrung.”*

Guided by occasional sounds, he at length saw an object lying on a rock a dozen yards from the shore, at which he was somewhat frightened. “The face and shoulders appeared of human form and of a reddish colour; over the shoulders hung long green hair; the tail resembled that of a seal, but the extremities of the arms he could not see distinctly.”

“ As on the wond’ring youth she smiled,
Again she raised the melting lay,”*

for the creature continued to make a musical noise during the two minutes he gazed at it, and, on perceiving him, disappeared in an instant.

The universality of the belief in an animal of combined human and fish-like form is very remarkable. That it exists amongst the Japanese we have evidence in their curious and ingeniously-constructed models which are occasionally brought to this country. I have one of these which is so exactly the counterpart of that which my friend Mr. Frank Buckland described, originally in *Land and Water*, and which forms the subject of a chapter in his ‘Curiosities of Natural History,’† that the portrait of the one (Fig. 14) will equally well represent the other. The lower half of the body is made of the skin and scales of a fish of the carp family, and fastened on to this, so neatly that it is hardly possible to detect where the joint is made, is a wooden body, the ribs of which are so prominent that the poor mermaid has a miserable and half-

* John Leyden.

† Third Series, vol. ii. p. 134, 2nd ed.

starved appearance. The upper part of the body is in the attitude of a Sphinx, leaning upon its elbows and fore-arms. The arms are thin and scraggy, and the fingers attenuated

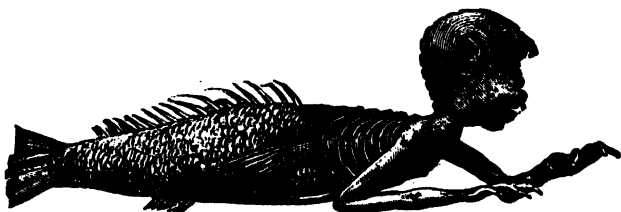


FIG. 14.—A JAPANESE ARTIFICIAL MERMAID.

and skeleton-like. The nails are formed of small pieces of ivory or bone. The head is like that of a small monkey, and a little wool covers the crown, so thinly and untidily that if the mermaid possessed a crystal mirror she would see the

necessity for the vigorous use of her comb of pearl. The teeth are those of some fish—apparently of the cat-fish, (*Anarchicas lupus*). These Japanese artificial mermaids have brought many a dollar into the pockets of Mr. Barnum and other showmen.



FIG. 15.—AN ARTIFICIAL MERMAID, PROBABLY JAPANESE.

Somewhat different in appearance from this, but of the same kind, was an artificial mermaid described in the *Saturday Magazine* of June 4th, 1836. Fig. 15 is a facsimile of the woodcut which accompanied it. This grotesque composition was exhibited in a glass case, some years previously, "in a leading street at the west end" of

London. It was constructed "of the skin of the head and shoulders of a monkey, which was attached to the dried

skin of a fish of the salmon kind with the head cut off, and the whole was stuffed and highly varnished, the better to deceive the eye." It was said to have been "taken by the crew of a Dutch vessel from on board a native Malacca boat, and from the reverence shown to it, it was supposed to be a representative of one of their idol gods." I am inclined to think that it was of Japanese origin.

Fig. 16 is described in the article above referred to as having been copied from a Japanese drawing, and as being a portrait of one of their deities. Its similarity to one of those of the Assyrians (Fig. 2, page 187) is remarkable. The inscription, however, does not indicate this. The Chinese characters in the centre — "*Nin giyo*"—signify "human fish;" those on the right in Japanese *Hira Kana*, or running-hand, have the same purport, and those on the left, in *Kata Kana*, the characters of the Japanese alphabet, mean "*Ichi hiru ike*"

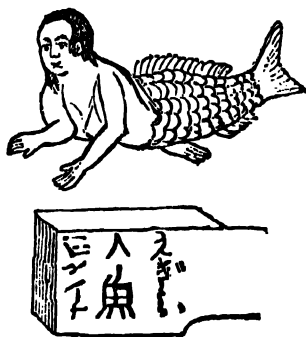


FIG. 16.—A MERMAID. *From Japanese picture.*

—"one day kept alive." The whole legend seems to pretend that this human fish was actually caught, and kept alive in water for twenty-four hours, but, as the box on which it is inscribed is one of those in which the Japanese showmen keep their toys, it was probably the subject of a "penny peep-show."

We need not travel from our own country to find the belief in mermaids yet existing. It is still credited in the north of Scotland that they inhabit the neighbouring seas: and Dr. Robert Hamilton, F.R.S.E., writing in 1839, expressed emphatically his opinion that there was then as

much ignorance on this subject as had prevailed at any former period.*

In the year 1797, Mr. Munro, schoolmaster of Thurso, affirmed that he had seen "a figure like a naked female, sitting on a rock projecting into the sea, at Sandside Head, in the parish of Reay. Its head was covered with long, thick, light-brown hair, flowing down on the shoulders. The forehead was round, the face plump, and the cheeks ruddy. The mouth and lips resembled those of a human being, and the eyes were blue. The arms, fingers, breast, and abdomen were as large as those of a full-grown female," and, altogether,

"That sea-nymph's form of pearly light
Was whiter than the downy spray,
And round her bosom, heaving bright,
Her glossy yellow ringlets play."†

"This creature," continued Mr. Munro, "was apparently in the act of combing its hair with its fingers, which seemed to afford it pleasure, and it remained thus occupied during some minutes, when it dropped into the sea."

The Dominie

"saw the maiden there,
Just as the daylight faded,
Braiding her locks of gowden hair
An' singing as she braided,"‡

but he did not remark whether the fingers were webbed. On the whole, he infers that this was a marine animal of which he had a distinct and satisfactory view, and that the portion seen by him bore a narrow resemblance to the human form. But for the dangerous situation it had chosen, and its appearance among the waves, he would have supposed it to be a woman. Twelve years later, several persons observed near the same spot an animal which they, also, supposed to be a mermaid.

* Naturalist's Library, Marine Amphibiae, p. 291.

† John Leyden.

‡ The Ettrick Shepherd.

A very remarkable story of this kind is one related by Dr. Robert Hamilton in the volume already referred to, and for the general truth of which he vouches, from his personal knowledge of some of the persons connected with the occurrence. In 1823 it was reported that some fishermen of Yell, one of the Shetland group, had captured a mermaid by its being entangled in their lines. The statement was that

“The animal was about three feet long, the upper part of the body resembling the human, with protuberant mammæ, like a woman; the face, forehead, and neck were short, and resembled those of a monkey; the arms, which were small, were kept folded across the breast; the fingers were distinct, not webbed; a few stiff, long bristles were on the top of the head, extending down to the shoulders, and these it could erect and depress at pleasure, something like a crest. The inferior part of the body was like a fish. The skin was smooth, and of a grey colour. It offered no resistance, nor attempted to bite, but uttered a low, plaintive sound. The crew, six in number, took it within their boat, but, superstition getting the better of curiosity, they carefully disentangled it from the lines and a hook which had accidentally become fastened in its body, and returned it to its native element. It instantly dived, descending in a perpendicular direction.”

Mr. Edmonston, the original narrator of this incident, was “a well-known and intelligent observer,” says Dr. Hamilton, and in a communication made by him to the Professor of Natural History in the Edinburgh University gave the following additional particulars, which he had learned from the skipper and one of the crew of the boat:—

“They had the animal for three hours within the boat: the body was without scales or hair; it was of a silvery grey colour above, and white below; it was like the human skin; no gills were observed, nor fins on the back or belly. The tail was like that of a dog-fish; the mammæ were about as large as those of a woman; the mouth and lips were very distinct, and resembled the human. Not one of the six men dreamed of a doubt of its being a mermaid, and it could not

be suggested that they were influenced by their fears, for the mermaid is not an object of terror to fishermen ; it is rather a welcome guest, and danger is apprehended from its experiencing bad treatment."

Mr. Edmonston concludes by saying that

"The usual resources of scepticism that the seals and other sea-animals appearing under certain circumstances, operating upon an excited imagination, and so producing ocular illusion, cannot avail here. It is quite impossible that six Shetland fishermen could commit such a mistake."

It would seem that the narrator demands that his readers shall be silenced, if unconvinced ; but

"He that complies against his will
Is of his own opinion still."

This incident is well-attested, and merits respectful and careful consideration. If Mr. Edmonston himself had seen the animal, his evidence would have been still more important ; but I decline to admit any such impossibility of error in observation or description on the part of the fishermen, or the further impossibility of recognising in the animal captured by them one known to naturalists. The particulars given in this instance, and also of the supposed merman seen cast ashore dead in 1719 by the Rev. Peter Angel (p. 210), are sufficiently accurate descriptions of a warm-blooded marine animal, with which the Shetlanders, and probably Mr. Edmonston also, were unacquainted, namely, the rytina, of which I shall have more to say presently (p. 228).

It would be hazarding too much to identify them with that Sirenian, for its only known habitat is far away northward in Behring's Sea ; yet these occurrences seem to me to afford some indication that as this remarkable beast, which was supposed to have become extinct in 1768, is now known to have been still in existence in 1854, it is not impossible that, at rare intervals, individuals of

this genus may have been carried by ice, or driven by currents or weather, further south than it was met with by its original describer, Steller.

Turning to Ireland, we find the same credence in the semi-human fish, or fish-tailed human being. It was affirmed—

“That in the autumn of 1819 a creature appeared on the Irish coast, about the size of a girl ten years of age, with a bosom as prominent as one of sixteen, having a profusion of long dark-brown hair, and full, dark eyes. The hands and arms were formed like those of a man, with a slight web connecting the upper part of the fingers, which were frequently employed in throwing back and dividing the hair. The tail appeared like that of a dolphin.”

This creature remained basking on the rocks during an hour, in the sight of numbers of people, until frightened by the flash of a musket, when

“Away she went with a sea-gull’s scream,
And a splash of her saucy tail,”*

for it instantly plunged with a scream into the sea.

From Irish legends we learn that those sea-nereids, the “Merrows,” or “Moruachs” came occasionally from the sea gained the affections of men, and interested themselves in their affairs; and similar traditions of the “Morgan” (sea-women) and the “Morverch” (sea-daughters) are current in Brittany.

In English poetry the mermaid has been the subject of many charming verses, and Shakspeare alludes to it in his plays no less than six times. The head-quarters of these “daughters of the sea” in England, or of the belief in their existence, are in Cornwall. There the fishermen, many a time and

“Oft, beneath the silver moon,†
Has heard, afar, the mermaid sing,”

* Thomas Hood. ‘The Mermaid at Margate.’

† John Leyden.

and has listened, so they say, to

“The mermaid’s sweet sea-soothing lay
That charmed the dancing waves to sleep.”*

Mr. Robert Hunt, F.R.S., in his collection of the traditions and superstitions of old Cornwall,† records several curious legends of the “merrymaids” and “merrymen” (the local name of mermaids), which he had gathered from the fisher-folk and peasants in different parts of that county.

And, in a pleasant article in ‘All the Year Round,’‡ 1865, “A Cornish Vicar” § mentions some of the superstitions of the people in his neighbourhood, and the perplexing questions they occasionally put to him. One of his parishioners, an old man named Anthony Cleverdon, but who was popularly known as “Uncle Tony,” having been the seventh son of his parents, in direct succession, was looked upon, in consequence, as a soothsayer. This “ancient augur” confided to his pastor many highly efficacious charms and formularies, and, in return, sought for information from him on other subjects. One day he puzzled the parson by a question which so well illustrates the local ideas concerning mermaids, and the sequel of which is, moreover, so humorously related by the vicar, that I venture to quote his own words, as follows:—

“Uncle Tony said to me, ‘Sir, there is one thing I want to ask you, if I may be so free, and it is this : why should a merrymaid, that will ride about upon the waters in such terrible storms, and toss from sea to sea in such ruckles as there be upon the coast, why should she never lose her looking-glass and comb?’ ‘Well, I suppose,’ said I,

* John Leyden.

† ‘Romances and Drolls of the West of England.’ London : Hotten, 1871.

‡ Vol. xiii. p. 336.

§ The “Cornish Vicar” was, evidently, the Rev. Robert Stephen Hawker, M.A., Vicar of Morwenstow, and author of ‘Echoes from Old Cornwall,’ ‘Footprints of Former Men in Cornwall,’ &c.

‘that if there are such creatures, Tony, they must wear their looking-glasses and combs fastened on somehow, like fins to a fish.’ ‘See!’ said Tony, chuckling with delight, ‘what a thing it is to know the Scriptures, like your reverence; I should never have found it out. But there’s another point, sir, I should like to know, if you please; I’ve been bothered about it in my mind hundreds of times. Here be I, that have gone up and down Holacombe cliffs and streams fifty years come next Candlemas, and I’ve gone and watched the water by moonlight and sunlight, days and nights, on purpose, in rough weather and smooth (even Sundays, too, saving your presence), and my sight as good as most men’s, and yet I never could come to see a merrymaid in all my life: how’s that, sir?’ ‘Are you sure, Tony,’ I rejoined, ‘that there are such things in existence at all?’ ‘Oh, sir, my old father see her twice! He was out one night for wreck (my father watched the coast, like most of the old people formerly), and it came to pass that he was down at the duck-pool on the sand at low-water tide, and all to once he heard music in the sea. Well, he cropt on behind a rock, like a coastguardsman watching a boat, and got very near the music . . . and there was the merrymaid, very plain to be seen, swimming about upon the waves like a woman bathing—and singing away. But my father said it was very sad and solemn to hear—more like the tune of a funeral hymn than a Christmas carol, by far—but it was so sweet that it was as much as he could do to hold back from plunging into the tide after her. And he an old man of sixty-seven, with a wife and a houseful of children at home. The second time was down here by Holacombe Pits. He had been looking out for spars—there was a ship breaking up in the Channel—and he saw some one move just at half-tide mark; so he went on very softly, step by step, till he got nigh the place, and there was the merrymaid sitting on a rock, the bootifullest merrymaid that eye could behold, and she was twisting about her long hair, and dressing it, just like one of our girls getting ready for her sweetheart on the Sabbath-day. The old man made sure he should greep hold of her before ever she found him out, and he had got so near that a couple of paces more and he would have caught her by the hair, as sure as tithe or tax, when, lo and behold, she looked back and glimpsed him! So, in one moment she dived head-foremost off the rock, and then tumbled herself topsy-turvy about in the water, and cast a look at my poor father, and grinned like a seal.’”

And a seal it probably was that Tony’s “poor father” saw.

What, then, are these mermaids and mermen, a belief in whose existence has prevailed in all ages, and amongst all the nations of the earth? Have they, really, some of the parts and proportions of man, or do they belong to another order of mammals on which credulity and inaccurate observation have bestowed a false character?

Mr. Swainson, a naturalist of deserved eminence, has maintained on purely scientific grounds, that there must exist a marine animal uniting the general form of a fish with that of a man; that by the laws of Nature the natatorial type of the *Quadrumanus* is most assuredly wanting, and that, apart from man, a being connecting the seals with the monkeys is required to complete the circle of quadrumanous animals.*

Mr. Gosse† argues that all the characters which Mr. Swainson selects as making the natatorial type of animals belong to man, and that he being, in his savage state, a great swimmer, is the true aquatic primate, which Mr. Swainson regards as absent. Mr. Gosse admits, however, that "nature has an odd way of mocking at our impossibilities, and" that "it *may be* that green-haired maidens with oary tails, lurk in the ocean caves, and keep mirrors and combs upon their rocky shelves;" and the conclusion he arrives at is that the combined evidence "induces a strong suspicion that the northern seas may hold forms of life as yet uncatalogued by science."

That there are animals in the northern and other seas with which we are unacquainted, is more than probable—discoveries of animals of new species are constantly being made, especially in the life of the deep sea—but I venture to think that the production of an animal at present

* 'Geography and Distribution of Animals.'

† 'Romance of Natural History,' 2nd Series.

unknown is quite unnecessary to account for the supposed appearances of mermaids.

We have in the form and habits of the *Phocidæ*, or earless seals, a sufficient interpretation of almost every incident of the kind that has occurred north of the Equator—of those in which protuberant *mammæ* are described, we must presently seek another explanation. The round, plump, expressive face of a seal, the beautiful, limpid eyes, the hand-like fore-paws, the sleek body, tapering towards the flattened hinder fins, which are directed backwards, and spread out in the form of a broad fin, like the tail of a fish, might well give the idea of an animal having the anterior part of its body human and the posterior half piscine.

In the habits of the seals, also, we may trace those of the supposed mermaid, and the more easily the better we are acquainted with them. All seals are fond of leaving the water frequently. They always select the flattest and most shelving rocks which have been covered at high tide, and prefer those that are separated from the mainland. They generally go ashore at half-tide, and invariably lie with their heads towards the water, and seldom more than a yard or two from it. There they will often remain, if undisturbed, for six hours; that is, until the returning tide floats them off the rock. As for the sweet melody, "so melting soft," that must depend much on the ear and musical taste of the listener. I have never heard a seal utter any vocal sounds but a porcine grunt, a plaintive moan, and a pitiful whine. But another habit of the seals has, probably more than anything else, caused them to be mistaken for semi-human beings—namely, that of poisoning themselves upright in the water with the head and the upper third part of the body above the surface.

One calm sunny morning in August, 1881, a fine schooner-yacht, on board of which I was a guest, was slowly gliding out of the mouth of the river Maas, past the Hook of Holland, into the North Sea, when a seal rose just ahead of us, and assumed the attitude above described. It waited whilst we passed it, inspecting us apparently with the greatest interest ; then dived, swam in the direction in which we were sailing, so as to intercept our course, and came up again, sitting upright as before. This it repeated three times, and so easily might it have been taken for a mermaid, that one of the party, who was called on deck to see it, thought, at first, that it was a boy who had swam off from the shore to the vessel on a begging expedition.

Laing, in his account of a voyage to the North, mentions having seen a seal under similar circumstances.

A young seal which was brought from Yarmouth to the Brighton Aquarium in 1873, habitually sat thus, showing his head and a considerable portion of his body out of water. His bath was so shallow in some parts that he was able to touch the bottom, and, with his after-flippers tucked under him, like a lobster's tail, and spread out in front, he would balance himself on his hind quarters, and look inquisitively at everybody, and listen attentively to everything within sight and hearing. When he was satisfied that no one was likely to interfere with him, and that it was unnecessary to be on the alert, he would half-close his beautiful, soft eyes, and either contentedly pat, stroke, and scratch his little fat stomach with his right paw, or flap both of them across his breast in a most ludicrous manner, exactly as a cabman warms the tips of his fingers on a wintry day, by swinging his arms vigorously across his chest, and striking his hands against his body on either

side. He was very sensitive to musical sounds, as many dogs are, and when a concert took place in the building a high note from one of the vocalists would cause him to utter a mournful wail, and to dive with a splash that made the water fly, the audience smile, and the singer frown.

Captain Scoresby tells us that he had seen the walrus with its head above water, and in such a position that it required little stretch of imagination to mistake it for a human being, and that on one occasion of this kind the surgeon of his ship actually reported to him that he had seen a man with his head above water.

Peter Gunnersen's merman (p. 212), who "blew up his cheeks and made a kind of roaring noise" before diving, was probably a "bladder-nose" seal. The males of that species have on the head a peculiar pad, which they can dilate at pleasure, and their voice is loud and discordant.

The appearance and behaviour of Steller's "sea-ape," described on p. 213, was, as he subsequently perceived, in exact conformity with the observed habits of the sea-otter, and they might, I think, be attributed, with almost equal probability to one of the eared seals, the so-called sea-lions, or sea-bears. Every one who has seen these animals fed must have noticed the rapidity with which they will dive and swim to any part of their pond where they expect to receive food, and how, like a dog after a pebble, they will keenly watch their keeper's movements, and start in the direction to which he is apparently about to throw a fish, even before the latter has left his hand. This may be seen at the Zoological Gardens, Regent's Park, and, better than anywhere else in Europe, at the Jardin d'Acclimatation, Paris. It would be quite in accordance with their habits that one of these *Otaria* should dive under a ship, and

rise above the surface on either side, eagerly surveying those on board, in hope of obtaining food, or from mere curiosity.

The seals and their movements account for so many mermaid stories, that all accounts of sea-women with prominent bosoms were ridiculed and discredited until competent observers recognised in the form and habits of certain aquatic animals met with in the bays and estuaries of the Indian Ocean, the Red Sea, the west coast of Africa, and sub-tropical America, the originals of these "travellers' tales." These were—first, the *manatee*, which is found in the West Indian Islands, Florida, the Gulf of Mexico, and Brazil, and in Africa in the River Congo, Senegambia, and the Mozambique Channel; second, the *dugong*, or *halicore*, which ranges along the east coast of Africa, Southern Asia, the Bornean Archipelago, and Australia; and, third, the *rytina*, seen on Behring's Island in the Kamschatkan Sea by Steller, the Russian zoologist and voyager, in 1741, and which is supposed to be now utterly extinct, in consequence of its having been recklessly and indiscriminately slaughtered.* Then science, in the person of Illeger, made

* Almost all that is known of the living *rytina* is from an account published in 1751, in St. Petersburg, by Steller, who was the surgeon of Behring's ship wrecked on an unknown and uninhabited island in the Kamschatkan Sea, thenceforth called "Behring's Island." When the unfortunate crew landed there, on November 17th, 1741, the "sea-cows," as they were named, pastured along the shore in herds; but during the ten months that the party remained on the island, they found the flesh of this animal so palatable that the fame of it was published by them on their return home, and it became a practice for the crews of all Russian vessels fitted out for the capture of the sea-otter to pass the winter on Behring's Island, in order to lay in a sufficient provision of sea-cow meat to last them during the hunting season. The *rytina* thus became more and more scarce, and until within the last few years it was believed to have been exterminated in the year 1768, only twenty-seven years after its first discovery by

the *amende honorable*, and frankly accepting Jack's introduction to his fish-tailed *innamorata*, classed these three animals together as a sub-order of the animal kingdom, and bestowed on them the name of the *Sirenia*. This was, of course, in allusion to the Sirens of classical mythology, who, in later art, were represented as having the body of a woman above the waist, and that of a fish below, although they were originally figured as having wings at their shoulders, and the lower portion of their body like that of a bird.

It has been found difficult to determine to which order these *Manatidæ* are most nearly allied. In shape they most closely resemble the whale and seals. But the cetacea are all carnivorous, whereas the manatee and its relatives live entirely on vegetable food. Although, therefore, Dr. J. E. Gray, following Cuvier, classed them with the cetacea in his British Museum catalogue, other anatomists, as Professor Agassiz, Professor Owen, and Dr. Muric, regard their resemblance to the whales as rather superficial than real, and conclude from their organisation and dentition that they ought either to form a group apart, or be classed with the pachyderms—the hippopotamus, tapir, etc.—with which they have the nearest affinities, and to which they seem to have been more immediately linked by the now lost genera, *Dinotherium* and *Halitherium*. With the opinion of those last-named authorities I entirely agree. I regard the manatee as exhibiting a wonderful modification and adaptation of the structure of a warm-blooded land animal which enables it to pass its whole life in water, and

Steller. This supposition was, however, incorrect, for Professor Nordenskiöld, when he visited Behring's Island in the "Vega," in 1879, obtained evidence of a living rytina having been seen as recently as 1854.

as a connecting link between the hippopotamus, elephant, etc. on the one side, and the whales and seals on the other.

The *Halitherium* was a Sirenian with which we are only acquainted by its fossil remains found in the Miocene formation of Central and Southern Europe. These indicate that it had short hind limbs, and, consequently, approached more nearly the terrestrial type than either the manatee, the rytina, or the dugong, in which the hind limbs are absent. The two last named tend more than does the manatee to the marine mammals; but there is a strong likeness between these three recent forms. They all have a cylindrical body, like that of a seal, but instead of hind limbs there is in all a broad tail flattened horizontally; and the chief difference in their outward appearance is in the shape of this organ. In the manatee it is rounded, in the dugong forked like that of a whale, in the rytina crescent-shaped. The tail of the *Halitherium* appears to have been shaped somewhat like that of the beaver. The body of the manatee is broader in proportion to its length and depth than that of the dugong. In a paper read before the Royal Society, July 12th, 1821, on a manatee sent to London in spirits by the Duke of Manchester, then Governor of Jamaica, Sir Everard Home remarked of this greater lateral expansion that, as the manatee feeds on plants that grow at the mouths of great rivers, and the dugong upon those met with in the shallows amongst small islands in the Eastern seas, the difference of form would make the manatee more buoyant, and better fitted to float in fresh water.

In all the *Manatidæ* the mammæ of the female, which are greatly distended during the period of lactation, are situated very differently from those of the whales, being just beneath the pectoral fins. These fins or paws are

much more flexible and free in their movements than those of the cetæ, and are sufficiently prehensile to enable the animal to gather food between the palms or inner surfaces of both, and the female to hold her young one to her breast with one of them. Like the whales, they are warm-blooded mammals, breathing by lungs, and are therefore obliged to come to the surface at frequent intervals for respiration. As they breathe through nostrils at the end of the muzzle, instead of, like most of the whales,



FIG. 17.—THE DUGONG. From Sir J. Emerson Tennent's 'Ceylon.'

through a blow-hole on the top of the head, their habit is to rise, sometimes vertically, in the water, with the head and fore part of the body exposed above the surface, and often to remain in this position for some minutes. When seen thus, with head and breast bare, and clasping its young one to its body, the female presents a certain resemblance to a woman from the waist upward. When approached or disturbed it dives; the tail and hinder portion of the body come into view, and we see that if there was little of the "*mulier formosa superne*," at any rate "*desinit*

in piscem." The manatee has thence been called by the Spaniards and Portuguese the "woman-fish," and by the Dutch the "manetje," or mannikin. The dugong, having the muzzle bristly, is named by the latter the "baard-manetje," or "little bearded man." There are no bristles or whiskers on the muzzle of the manatee; all the portraits of it in which these are shown are in that respect erroneous. The origin of the word "manatee" has by some been traced to the Spanish, as indicating "an animal with hands." On the west coast of Africa it is called by the natives "Ne-hoo-le." By old writers it was described as the "sea-cow." Gesner depicts it in the act of bellowing; and Mr. Bates, in his work, 'The Naturalist on the Amazon,' says that its voice is something like the bellowing of an ox. The Florida "crackers" or "mean whites," make the same statement. Although I have had opportunities of prolonged observation of it in captivity, I have not heard it give utterance to any sound—not even a grunt—and Mr. Bartlett, of the Zoological Gardens, tells me that his experience of it is the same. His son, Mr. Clarence Bartlett, says that a young one he had in Surinam used to make a feeble cry, or bleat, very much like the voice of a young seal. This is the only sound he ever heard from a manatee.*

I believe the dugong to be more especially the animal referred to by Ælian as the semi-human whale, and that which has led to this group having been supposed by southern voyagers to be aquatic human beings. In the first place, the dugong is a denizen of the sea, whereas the

* For a full description of the habits of this animal in captivity, see an article by the present writer in the 'Leisure Hour' of September 28, 1878; from which the illustration, Fig. 18, is borrowed by the kind consent of the Editor of that publication.

manatee is chiefly found in rivers and fresh-water lagoons ; and secondly, the dugong accords with Ælian's description of the creature with a woman's face in that it has "prickles instead of hairs," whilst the manatee has no such stiff bristles.



FIG. 18.—THE MANATEE. ITS USUAL POSITION

In the case of either of these two animals being mistaken for a mermaid, however, "distance" must "lend enchantment to the view," and a sailor must be very impressible and imaginative who, even after having been deprived for many months of the pleasure of females' society, could be

allured by the charms of a bristly-muzzled dugong, or mistake the snorting of a wallowing manatee for the love-song of a beauteous sea-maiden.

Unfortunately both the dugong and the manatee are being hunted to extinction.

The flesh of the manatee is considered a great delicacy. Humboldt compares it with ham. Unlike that of the whales, which is of a deep and dark red hue, it is as white as veal, and, it is said, tastes very like it. It is remarkable for retaining its freshness much longer than other meat, which in a tropical climate generally putrefies in twenty-eight hours. It is therefore well adapted for pickling, as the salt has time to penetrate the flesh before it is tainted. The Catholic clergy of South America do not object to its being eaten on fast days, on the supposition that, with whales, seals, and other aquatic mammals, it may be liberally regarded as "fish." The "Indians" of the Amazon and Orinoco are so fond of it that they will spend many days, if necessary, in hunting for a manatee, and having killed one will cut it into slabs and slices on the spot, and cook these on stakes thrust into the ground aslant over a great fire, and heavily gorge themselves as long as the provision lasts. The milk of this animal is said to be rich and good, and the skin is valuable for its toughness, and is much in request for making leathern articles in which great strength and durability are required. The tail contains a great deal of oil, which is believed to be extremely nutritious, and has also the property of not becoming rancid. Unhappily for the dugong, its oil is in similarly high repute, and is greatly preferred as a nutrient medicine to cod-liver oil. As its flesh also is much esteemed, it is so persistently hunted on the Australian coasts that it will probably soon become extinct, like the *rytina* of Steller.

The same fate apparently awaits the manatee, which is becoming perceptibly more and more scarce.

I fear that before many years have elapsed the Sirens of the Naturalist will have disappeared from our earth, before the advance of civilization, as completely as the fables and superstitions with which they have been connected, before the increase of knowledge; and that the mermaid of fact will have become as much a creature of the past as the mermaid of fiction. With regard to the latter—the Siren of the poets,—the water-maiden of the pearly comb, the crystal mirror, and the sea-green tresses,—there are few persons, I suppose, at the present day who would not be content to be classed with Banks, the fine old naturalist and formerly ship-mate of Captain Cook. Sir Humphry Davy in his "*Salmonia*" relates an anecdote of a baronet, a profound believer in these fish-tailed ladies, who on hearing some one praise very highly Sir Joseph Banks, said that "Sir Joseph was an excellent man, but he had his prejudices—he did not believe in the mermaid." I confess to having a similar "prejudice;" and am willing to adopt the further remark of Sir Humphry Davy:—"I am too much of the school of Izaak Walton * to talk of impossibility. It doubtless might please God to make a mermaid, but I don't believe God ever did make one."

* Allusion is here made by Sir H. Davy to a paragraph in 'The Complete Angler,' in which Izaak Walton says: "Indeed, we may say of angling as Dr. Boteler said of strawberries, 'Doubtless God could have made a better berry, but doubtless God never did'; and so (if I might be judge) God never did make a more calm, quiet, innocent recreation than angling."

THE LERNEAN HYDRA.

THE mystery of the Kraken, of which I treated in a companion volume to the present, recently published,* is not difficult to unravel. The clue to it is plain, and when properly taken up is as easily unwound, to arrive at the truth, as a cocoon of silk, to get at the chrysalis within it. It was a boorish exaggeration, a legend of ignorance, superstition, and wonder. But when such a skein of facts has passed through the hands of the poets, it is sure to be found in a much more intricate tangle; and many a knot of pure invention may have to be cut before it is made clear.

Nevertheless, we shall be able to discern that more than one of the most famous and hideous monsters of old classical lore originated, like the Kraken, in a knowledge by their authors of the form and habits of those strange sea-creatures, the head-footed mollusks. There can be little doubt that the octopus was the model from which the old poets and artists formed their ideas, and drew their pictures of the Lernean Hydra, whose heads grew again when cut off by Hercules; and also of the monster Scylla, who, with six heads and six long writhing necks, snatched men off the decks of passing ships and devoured them in the recesses of her gloomy cavern.

Of the Hydra, Diodorus relates that it had a hundred heads; Simonides says fifty; but the generally received opinion was that of Apollodorus, Hyginus and others, that it had only nine.

* 'Sea Monsters Unmasked.' Clowes and Sons, Limited.

Apollodorus of Athens, son of Asclepiades, who wrote in stiff, quaint Greek about 120 B.C., gives in his 'Bibliotheca' (book ii. chapter 5, section 2) the following account of the many-headed monster. "This Hydra," he says, "nourished in the marshes of Lerne, went forth into the open country and destroyed the herds of the land. It had a huge body and nine heads, eight mortal, but the ninth immortal. Having mounted his chariot, which was driven by Iolaus, Hercules got to Lerne and stopped his horses. Finding the Hydra on a certain raised ground near the source of the Amymon, where its lair was, he made it come out by pelting it with burning missiles. He seized and stopped it, but having twisted itself round one of his feet, it struggled with him. He broke its head with his club: but that was useless; for when one head was broken two sprang up, and a huge crab helped the Hydra by biting the foot of Hercules. This he killed, and called Iolaus, who, setting on fire part of the adjoining forest, burned with torches the germs of the growing heads, and stopped their development. Having thus out-manœuvred the growing heads, he cut off the immortal head, buried it, and put a heavy stone upon it, beside the road going from Lerne to Eleonta, and having opened the Hydra, dipped his arrows in its gall."

If we wish to find in nature the counterpart of this Hydra, we must seek, firstly, for an animal with eight out-growths from its trunk, which it can develop afresh, or replace by new ones, in case of any or all of them being amputated or injured. We must also show that this animal, so strange in form and possessing such remarkable attributes, was well known in the locality where the legend was believed. We have it in the octopus, which abounded in the Mediterranean and Ægean seas, and whose eight prehensile arms, or tentacles, spring from its central body,

the immortal head, and which, if lost or mutilated by misadventure, are capable of reproduction.

That a knowledge of the octopus existed at a very early period of man's history we have abundant evidence. The ancient Egyptians figured it amongst their hieroglyphics, and an interesting proof that they were also acquainted with other cephalopods was given to me by the late Mr. E. W. Cooke, R.A. Whilst on a trip up the Nile, in January, 1875, he visited the temple of Bayr-el-Bahree, Thebes (date 1700 B.C.), the entrance to which had been deeply buried beneath the light, wind-drifted sand, accu-

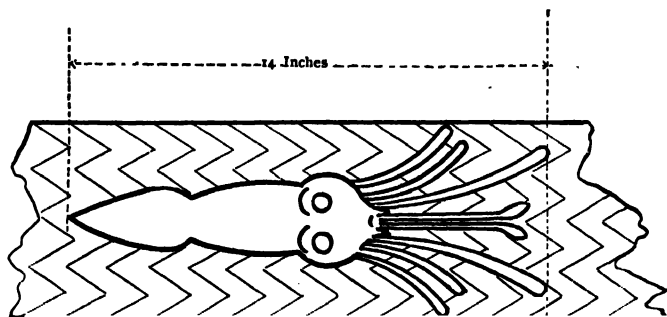


FIG. 19.—FIGURE OF A CALAMARY. *From the temple of Bayr-el-Bahree.*

mulated during many centuries. By order of the Khedive, access had just at that time been obtained to its interior, by the excavation and removal of this deep deposit, and, amongst the hieroglyphics on the walls, were found, between the zig-zag lines which represent water, figures of various fishes, copies of which Mr. Cooke kindly gave me, and which are so accurately portrayed as to be easily identified. With them was the outline of a squid fourteen inches long, a figure of which, from Mr. Cooke's drawing, is here shown. As this temple is five hundred miles from the delta of the Nile, it is remarkable that nearly all the fishes there represented are of marine species.

That the octopus was a familiar object with the ancient Greeks, we know by the frequency with which its portrait is found on their coins, gems, and ornaments. Aldrovandus describes "very ancient coins" found at Syracuse and Tarentum bearing the figure of an octopus. He says the Syracusans had two coins, one of bronze, the other of gold, both of which had an octopus alone on one

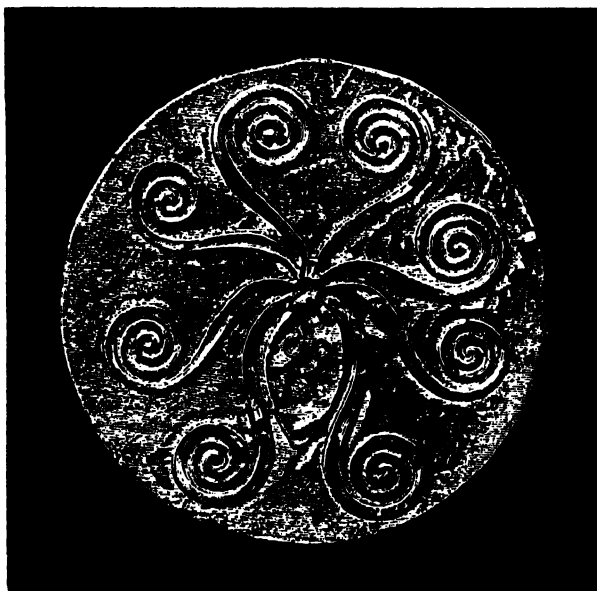


FIG. 20.—FIGURE OF AN OCTOPUS ON A GOLD ORNAMENT, FOUND BY DR. SCHLIEMANN AT MYCENÆ.

side. On the reverse of the bronze one was a veiled female face in profile, with the inscription ΣΥΡΑ. I have one of these bronze Syracusan coins; it was kindly given to me, some years ago, by my friend Dr. John Millar, F.L.S. The octopus is really well depicted. On the gold coin the female head was differently veiled, and at the back of the neck was a fish. The inscription on this coin was

ΣΥΡΑΚΟΣΙΩΝ. Goltzius was of the opinion that the head was that of Arethusa. The coins found at Tarentum had on one side a figure of Neptune seated on a dolphin, and holding an octopus in one hand and a trident in the other.

Lerne, or Lerna, the reputed home of the Hydra, was a port of Southern Greece, situated at the head of the Gulf of Nauplia, and between the existing towns of Argos and Tripolitza. Within a few miles of it was Mycenæ; and it is remarkable that Dr. Schliemann, during his excavations

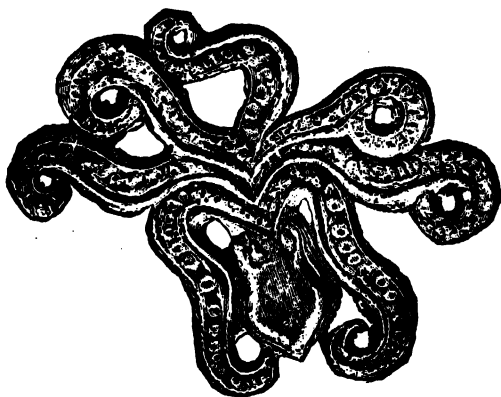


FIG. 21.—GOLDEN ORNAMENT IN FORM OF AN OCTOPUS, FOUND BY DR. SCHLIEMANN AT MYCENÆ.

there in 1876, found in a tomb a gold plate, or button, two and a half inches in diameter (Fig. 20), on which is figured an octopus, the eight arms of which are converted into spirals, the head and the two eyes being distinctly visible. In another sepulchre he discovered fifty-three golden models of the octopus (Fig. 21), all exactly alike, and apparently cast in the same mould. The arms are very naturally carved. By the kindness of Mr. Murray, his publisher, I am enabled to give illustrations of these and two other handsome ornaments.

Having ascertained that the octopus was a familiar object in the very locality where the combat between Hercules and the Hydra is supposed to have taken place, let us compare the animal as it exists with the monstrous offspring of Typhon and Echidna.

It is a not uncommon occurrence that when an octopus is caught it is found to have one or more of its arms shorter than the rest, and showing marks of having been amputated, and of the formation of a new growth from the old cicatrix. Several such specimens were brought to the Brighton Aquarium whilst I had charge of its Natural History

FIG. 22.

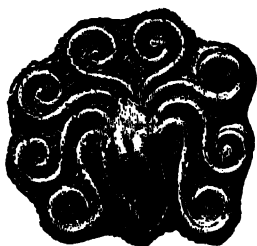


FIG. 23.



FIGURES OF THE OCTOPUS ON GOLD ORNAMENTS FOUND BY
DR. SCHLIEMANN AT MYCENÆ.

Department. One of them was particularly interesting. Two of its arms had evidently been bitten off about four inches from the base : and out from the end of each healed stump (which in proportion to the length of the limb was as if a man's arm had been amputated halfway between the shoulder and the elbow), grew a slender little piece of newly-formed arm, about as large as a lady's stiletto, or a small button-hook—in fact just the equivalent of worthy Captain Cuttle's iron hook, which did duty for his lost hand. It was an illustrative example of the commencement of the repair and restoration of mutilated limbs.

This mutilation is so common in some localities, that

Professor Steenstrup says * that almost every octopus he has examined has had one or two arms reproduced ; and that he has seen females in which all the eight arms had been lost, but were more or less restored. He also mentions a male in which this was the case as to seven of its arms. He adds that whilst the *Octopoda* possess the power of reproducing with great facility and rapidity their arms, which are exposed to so many enemies, the *Decapoda*—the *Sepiida* and Squids—appear to be incapable of thus repairing and replacing accidental injuries. This is entirely in accord with my own observations.

This reparative power is possessed by some other animals, of which the starfishes and crustacea are the most familiar instances. In the case of the lobster or crab, however, the only joint from which new growth can start is that connected with the body, so that if a limb be injured in any part, the whole of it must be got rid of, and the animal has, therefore, the power of casting it off at will. The octopus, on the contrary, is incapable of voluntary dismemberment, but reproduces the lost portion of an injured arm, as an out-growth from the old stump.

The ancients were well acquainted with this reparative faculty of the octopus : but of course the simple fact was insufficient for an imaginative people : and they therefore embellished it with some fancies of their own. There lingers still amongst the fishermen of the Mediterranean a very old belief that the octopus when pushed by hunger will gnaw and devour portions of its arms. Aristotle knew of this belief, and positively contradicted it ; but a fallacy once planted is hard to eradicate. You may cut it down, and apparently destroy it, root and branch, but its seeds are scattered abroad, and spring up elsewhere, and in un-

* Ann. and Mag. Nat. Hist. August, 1857.

expected places. Accordingly, we find Oppian, more than five centuries later, disseminating the same old notion, and comparing this habit of the animal with that of the bear obtaining nutriment from his paws by sucking them during his hybernation.

“When wintry skies o’er the black ocean frown,
And clouds hang low with ripen’d storms o’ergrown,
Close in the shelter of some vaulted cave
The soft-skinn’d prekes * their porous bodies save.
But forc’d by want, while rougher seas they dread,
On their own feet, necessitous, are fed.
But when returning spring serenest the skies,
Nature the growing parts anew supplies.
Again on breezy sands the roamers creep,
Twine to the rocks, or paddle in the deep.
Doubtless the God whose will commands the seas,
Whom liquid worlds and wat’ry natives please,
Has taught the fish by tedious wants oppress
Life to preserve and be himself the feast.

The fact is, that the larger predatory fishes regard an octopus as very acceptable food, and there is no better bait for many of them than a portion of one of its arms. Some of the cetacea also are very fond of them, and whalers have often reported that when a “fish” (as they call it) is struck it disgorges the contents of its stomach, amongst which they have noticed parts of the arms of cuttles which, judging from the size of their limbs, must have been very large specimens. The food of the sperm whale consists largely of the gregarious squids, and the presence in spermaceti of their undigested beaks is accepted as a test of its being genuine. That old fish-

* The octopus is still called the “preke” in some parts of England, notably in Sussex. The translation of Oppian’s ‘Halieutics,’ from which this passage and others are quoted, is that by Messrs. Jones and Diaper, of Baliol College, Oxford, and was published in 1722.

reptile, the *Ichthyosaurus*, also, preyed upon them ; and portions of the horny rings of their suckers were discovered in its coprolites by Dean Buckland. Amongst the worst enemies of the octopus is the conger. They are both rock-dwellers, and if the voracious fish come upon his cephalopod neighbour unseen, he makes a meal of him, or, failing to drag him from his hold, bites off as much of one or two of his arms as he can conveniently obtain. The conger, therefore, is generally the author of the injury which the octopus has been unfairly accused of inflicting on itself.

Continuing our comparison with the hydra, we have in the octopus an animal capable of quitting its rocky lurking-place in the sea, and going on a buccaneering expedition on dry land. Many incidents have been related in connection with this ; but I can attest it from my own observation. I have seen an octopus travel over the floor of a room at a very fair rate of speed, toppling and sprawling along in its own ungainly fashion ; and in May, 1873, we had one at the Brighton Aquarium which used regularly every night to quit its tank, and make its way along the wall to another tank at some distance from it, in which were some young lump-fishes. Day after day, one of these was missing, until, at last, the marauder was discovered. Many days elapsed, however, before he was detected, for after helping himself to, and devouring a young "lump-sucker," he demurely returned before daylight to his own quarters.

Of this habit of the octopus the ancients were, also, fully aware. Aristotle wrote that it left the water and walked in stony places, and Pliny and Ælian related tales of this animal stealing barrels of salt fish from the wharves, and crushing their staves to get at the contents. An octopus that could do this would be as formidable a

predatory monster as the Lernean Hydra, which had the evil reputation of devouring the Peloponnesian cattle.

Whoever first described the counter-attack of the Hydra on Hercules must have had the octopus in his thoughts. "It twisted itself round one of his feet"—exactly that which an octopus would do.

Finally, according to the legend, Hercules dipped his arrow-heads in the gall of the Hydra, and, from its poisonous nature, all the wounds he inflicted with them upon his

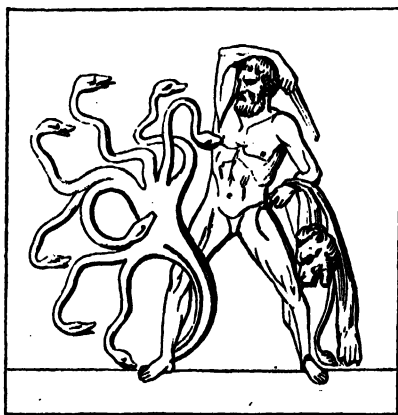


FIG. 24.—HERCULES SLAYING THE LERNEAN HYDRA.
From Smith's 'Classical Dictionary.'

enemies proved fatal. It is worthy of notice that the ancients attributed to the octopus the possession of a similarly venomous secretion. Thus Oppian writes :

"The crawling preke a deadly juice contains.
Injected poison fires the wounded veins."

The accompanying illustration (Fig. 24) of Hercules slaying the Hydra is taken from a marble tablet in the Vatican. It will be immediately seen how closely the Hydra, as there depicted, resembles an octopus. The body

is elongated, but the eight necks with small heads on them bear about the same proportion to the body as the arms to the body of an octopus.

The Reverend James Spence, in his '*Polymetis*,' published in 1755, gives a figure, almost the counterpart of this, copied from an antique gem, a carnelian, in the collection of the Grand Duke of Tuscany at Florence. Only seven necks of the hydra are, however, there visible, and there are two colis in the elongated body. On the upper part are two spots which have been supposed to represent breasts. This was probably intended by the artificer; but that the idea originated from a duplication of the syphon tube is evident from the figures (Figs. 22, 23) of the octopus on the smaller gold ornaments found by Dr. Schliemann at Mycenæ. In the same work is also an engraving from a picture in the Vatican Virgil, entitled '*The River, or Hateful Passage into the Kingdom of Ades*,' wherein an octopus-hydra, of which only six heads and necks are shown, is one of the monsters called by the author "*Terrors of the Imagination*."

SCYLLA AND CHARYBDIS.

IN the description given by Homer, in the twelfth book of the 'Odyssey,' of the unfortunate nymph Scylla, transformed by the arts of Circe into a frightful monster, the same typical idea as in the case of the Hydra is perceptible. The lurking octopus, having its lair in the cranny of a rock, watching in ambush for passing prey, seizing anything coming within its reach with one or more of its prehensile arms, even brandishing these fear-inspiring weapons out of water in a threatening manner, and known in some localities to be dangerous to boats and their occupants, is transformed into a many-headed sea monster, seizing in its mouths, instead of by the adhesive suckers of its numerous arms, the helpless sailors from passing vessels, and devouring them in the abysses of its cavernous den.

Circe, prophesying to Ulysses the dangers he had still to encounter, warned him especially of Scylla and Charybdis, within the power of one of whom he must fall in passing through the narrow strait (between Italy and Sicily) where they had their horrid abode. Describing the lofty rock of Scylla, she tells him :

" Full in the centre of this rock displayed
A yawning cavern casts a dreadful shade,
Nor the fleet arrow from the twanging bow
Sent with full force, could reach the depth below.
Wide to the west the horrid gulf extends,
And the dire passage down to hell descends.

O fly the dreadful sight ! expand thy sails,
 Ply the strong oar, and catch the nimble gales ;
 Here Scylla bellows from her dire abodes ;
 Tremendous pest ! abhorred by man and gods !
 Hideous her voice, and with less terrors roar
 The whelps of lions in the midnight hour.
 Twelve feet deformed and foul the fiend dispreads ;
 Six horrid necks she rears, and six terrific heads ;

* * * * *

When stung with hunger she embroils the flood,
 The sea-dog and the dolphin are her food ;
 She makes the huge leviathan her prey,
 And all the monsters of the wat'ry way ;
 The swiftest racer of the azure plain
 Here fills her sails and spreads her oars in vain ;
 Fell Scylla rises, in her fury roars,
 At once six mouths expands, at once six men devours." *

Circe then describes the perils of the whirling waters of Charybdis as still more dreadful ; and, admonishing Ulysses that once in her power all must perish, she advises him to choose the lesser of the two evils, and to

"shun the horrid gulf, by Scylla fly ;
 'Tis better six to lose than all to die."

Ulysses continues his voyage ; and as his ship enters the ominous strait,

"Struck with despair, with trembling hearts we viewed
 The yawning dungeon, and the tumbling flood ;
 When, lo ! fierce Scylla stooped to seize her prey,
 Stretched her dire jaws, and swept six men away.
 Chiefs of renown ! loud echoing shrieks arise ;
 I turn, and view them quivering in the skies ;
 They call, and aid, with outstretched arms, implore,
 In vain they call ! those arms are stretched no more.
 As from some rock that overhangs the flood,
 The silent fisher casts th' insidious food ;

Homer's 'Odyssey,' Pope's Translation, Book XII.

With fraudulent care he waits the finny prize,
And sudden lifts it quivering to the skies ;
So the foul monster lifts her prey on high,
So pant the wretches, struggling in the sky ;
In the wide dungeon she devours her food,
And the flesh trembles while she churns the blood."

THE "SPOUTING" OF WHALES.

ONE of the sea-fallacies still generally believed, and accepted as true, is that whales take in water by the mouth, and eject it from the spiracle, or blow-hole.

The popular ideas on this subject are still those which existed hundreds of years ago, and which are expressed by Oppian in two passages in his 'Halicutics':

"Uncouth the sight when they in dreadful play
Discharge their nostrils and refund a sea,"

and

"While noisy fin-fish let their fountains fly
And spout the curling torrent to the sky."

Eminent zoologists and intelligent observers, who have had full opportunities of obtaining practical knowledge of the habits of these great marine mammals, have forcibly combated and repeatedly contradicted this erroneous idea; but their sensible remarks have been read by few, in comparison with the numbers of those to whom a wrong impression has been conveyed by sensational pictures in which whales are represented *with their heads above the surface*, and throwing up from their nostrils columns of water, like the fountains in Trafalgar Square. One can hardly be surprised that the old writers on Natural History were unacquainted with the real composition of the whale's "spout." Those of them who sought for any original information on marine zoology, obtained it chiefly from uninstructed and superstitious fishermen; but they generally contented

themselves with diligent compilation, and thus copied and transmitted the errors of their predecessors, with the addition of some slight embellishments of their own. Accordingly, we find Olaus Magnus * describing, as follows, the *Physeter*, or, as his translator, Streater, calls it, the *Whirlpool*. "The *Physeter* or *Pristis*," he says, "is a kind of whale, two hundred cubits long, and is very cruel. For, to the danger of seamen, he will sometimes raise himself above the sail-yards, and casts such floods of waters above his head, which he had sucked in, that with a cloud of them he will often sink the strongest ships, or expose the mariners to extreme danger. This beast hath also a large round mouth, like a lamprey, whereby he sucks in his meat or water, and by his weight cast upon the fore or hinder deck, he sinks and drowns a ship."

Figures 25 and 26 (p. 252) are facsimiles of the illustrations which accompany the above description. It will be seen that, in the first, the *Physeter* is depicted as uprearing a maned neck and head, like that of a fabled dragon; whilst in Fig. 26 it is shown as a whale flinging itself on board a ship, which is sinking under its ponderous weight. In both, torrents of water are issuing from its head, and it is evident that they are merely exaggerated misrepresentations of the "spouting" of whales.

Gesner copies many of Olaus Magnus's illustrations, and improves upon Fig. 26 by putting a numerous crew on board the ship. The unfortunate sailors are depicted in every attitude of terror and despair, and seem to be incapacitated from any attempt to save themselves by the flood of water which the whale is deliberately pouring upon them from its blow-holes.

* '*Historia de Gentibus Septentrionalibus*,' lib. xxi. cap. vi. A.D. 1555.



FIG. 25.—THE PHYSETER INUNDATING A SHIP. *After Olaus Magnus.*

These old pictures appear, no doubt, ridiculous, but they are, really, very little more absurd and untrue to nature than many of those which disfigure some otherwise useful books on Natural History of the present day. I could



FIG. 26.—A WHALE POURING WATER INTO A SHIP FROM ITS BLOW-HOLE. *After Olaus Magnus.*

refer to several, in which whales are represented as spouting from their blow-holes one or more columns of water, which, after ascending skyward to a considerable distance, fall

FIG. 27.—SPERM WHALES ERRONEOUSLY REPRESENTED AS "SPOUTING."



over gracefully as if issuing from the nozzle of an ornamental fountain. I select one from amongst them (Fig. 27), not with any disrespect for the artist, author, or publisher of the work

from which it is taken, but because, whilst it shows correctly the position of the blow-hole of the sperm whale, it also exhibits exactly that which I wish to confute. The publishers of the valuable work in which this picture appeared have generously consented to my reproducing it here.

When, in describing, in 1877, the White Whale then exhibited at the Westminster Aquarium, I said that whales do not spout water out of their blow-holes, and that the idea that they do so is a popular error, the statement was so contrary to generally-accepted notions that I was not surprised by receiving more than one letter on the subject. One very reasonable suggestion made to me was that although the lesser whales, such as the porpoises, which I had had opportunities of watching in confinement at Brighton for two years, and the *Beluga*, which had been observed for a similar period at the New York Aquarium, and also at Westminster, did not "spout," the respiratory apparatus of the larger whales might be so modified as to permit them to do so. Let us consider the construction of the breathing apparatus which would have to be thus modified, as shown in the porpoise.

In the first place, there is a pair of lungs as perfect as those of any land mammal, fitted to receive air, and to bring the hot blood into contact with the air, that it may absorb the oxygen of the air, and so be purified. But this air cannot well be breathed through the mouth of an animal which has to take its food from and in water; so it has to be inhaled only by the nostrils. If these were situated as they are in land mammals, near the extremity of the nose, the porpoise would be obliged to stop when pursuing its prey, or, escaping from its enemies, to put the tip of its nose above the surface of the water every time it required to breathe. A much more convenient arrange-

ment has, therefore, been provided for it, and for almost all whales, by which that difficulty is removed. Instead of running along the bones of the nose, the nostrils are placed on the top of the head, and the windpipe is turned up to them without having any connection with the palate. The upper jaw is quite solid. Thus the mouth is solely devoted to the reception of food, and the animal is enabled to continue its course when swimming, however rapidly, by rising obliquely to the surface, and exposing the top of its head above it. On the blow-hole being opened, the air, from which the oxygen has been absorbed, is expelled in a sudden puff, another supply is instantaneously inhaled, and rushes into the lungs with extreme velocity, and then the porpoise can either descend into the depths, or remain with its spiracle exposed to the air, as it may prefer. In this act of breathing the spiracle is normally brought above the water, the breath escapes, and the immediate inhalation is effected almost in silence. But frequently, and in some whales habitually, the blow-hole is opened just below the surface, and then the outrush of air causes a splash upwards of the water overlying it.

I may here mention that I have frequently seen the porpoises at the Brighton Aquarium lying asleep at the surface, with the blow-hole exposed above it, breathing automatically, and without conscious effort. Aristotle was acquainted with this habit of the cetacea 2,200 years ago, for he wrote: "They sleep with the blow-hole, their organ of respiration, elevated above the water."

The apparatus for closing the blow-hole, so that not a drop of water shall enter the windpipe, even under great pressure, is a beautiful contrivance, complex in its structure, yet most simple in its working. The external aperture is covered by a continuation of the skin, locally thickened, and

connected with a conical stopper, of a texture as tough as india-rubber, which fits perfectly into a cone or funnel formed by the extremity of the windpipe, and closes more and more firmly as the pressure upon it is increased. Whilst the orifice is thus guarded, the lower end of the tube is surrounded by a strong compressing muscle, which clasps also the glottis, and thus the passage from the blow-hole to the lungs is completely stopped.

There is nothing in this which indicates the possibility of the spouting of water from the nostrils; but as assertions that water had been seen to issue from them were positive and persistent, anatomists seem to have felt themselves obliged to try to account for it somehow. Accordingly the theory was propounded by F. Cuvier that the water taken into the mouth is reserved in two pouches (one on each side), until the whale rises to blow, when, the gullet being closed, it is forced by the action of the tongue and jaws through the nasal passages, somewhat as a smoker occasionally expels the smoke of his cigar through his nostrils. Although these pouches, or sacs analogous to them, are found at the base of the nostrils of the horse, tapir, etc.,—animals which do not “spout” from the nostrils water taken in by the mouth—the explanation was accepted for a time.

Mr. Bell held this opinion when the first edition of his ‘British Quadrupeds’ was published in 1837, but before the issue of the second edition, in 1874, he had found reasons for taking a different view of the matter; and, under the advice of his judicious editors, Mr. Alston and Professor Flower (the latter of whom supervised the proofs of the chapters on the Cetacea) his sanction of the illusion was withdrawn as follows:—

“The results of more recent and careful observations, amongst

which we may notice those of Bennett, Von Baer, Sars and Burmeister, are directly opposed to the statement that water is thus ejected ; and there can now be no doubt that the appearance which has given rise to the idea is caused by the moisture with which the expelled breath is supercharged, which condenses at once in the cold outer air, and forms a cloud or column of white vapour. It is possible indeed that if the animal begins to 'blow' before its head is actually at the surface, the force of the rushing air may drive up some little spray along with it, but this is quite different from the notion that water is really expelled from the nasal passages. We may add that on the only occasion when we ourselves witnessed the 'spouting' of a large whale we were much struck with its resemblance to the column of white spray which is dashed up by the ricochetting ball fired from one of the great guns of a man-of-war."

The simile is admirable, and nothing could better describe the appearance of a whale's "spout" ; but, in the previous portion of the passage (except with reference to the sperm whale, the nostrils of which are not on the top of the head), I think sufficient importance is not conceded to the volume of water propelled into the air by the outrush of breath from the submerged blow-hole. I do not know how many cubic feet of air the lungs of a great whale are capable of containing, but the quantity is sufficient to force up to a height of several feet the water above the valve when the latter is opened, not only in "some little spray," but for some distance in a good solid jet—enough, in fact, to give the appearance of its actually issuing from the blow-hole, and to account for the erroneous belief of sailors that it does so. It must be remembered that the escape of air is not by a prolonged wheeze, but by a sudden blast, and thus when the spiracle is opened just beneath the surface, an instant before it is uncovered to take in a fresh supply of air, the water above its orifice is thrown up as by a slight subaqueous explosion, or as by the momentary opening under water of the safety-valve of a steam boiler. Some idea of the force and volume of the blast of air from the lungs of

even the common porpoise may be formed when I mention that one of the porpoises at the Brighton Aquarium, happening to open its spiracle just beneath an illuminating gas jet fixed over its tank, blew out the light.

In the sperm whale the nostrils are placed near the extremity of the nose, and therefore this whale has to raise its snout above the surface when it requires to breathe; but instead of this being necessary, as in the case of the porpoise twice or thrice in a minute, the sperm whale only rises to "blow" at intervals of from an hour to an hour and twenty minutes. Mr. Beale says* that in a large bull sperm whale the time consumed in making one expiration and one inspiration is ten seconds, during six of which the nostril is beneath the surface of the water—the expiration occupying three seconds, and the inspiration one second. At each breathing time this whale makes from sixty to seventy expirations, and remains, therefore, at the surface ten or eleven minutes, and then, raising its tail, it descends perpendicularly, head first. In different individuals the time required for performing these several acts varies; but in each they are minutely regular, and this well-known regularity is of considerable use to the fishers, for when a whaler has once noticed the periods of any particular whale which is not alarmed, he knows to a minute when to expect it to come to the surface, and how long it will remain there. The "spout" of the sperm whale differs much from that of other whales. Unlike, for instance, the straight perpendicular twin jets of the "right whale," the single, forward-slanting "spout" of the sperm whale presents a thick curled bush of white mist. Each whale has a different mode and time of breathing, and the form of the "spout" differs accordingly.

It is said that the blowing of the *Beluga*, or "White

* 'Natural History of the Sperm Whale.' Van Voorst, 1839.

Whale," is not unmusical at sea, and that when it takes place under water it often makes a peculiar sound which might be mistaken for the whistling of a bird. Hence is derived one of the names given to this whale by sailors—the "Sea-canary." Though I have had opportunities of attentively watching the breathing and other actions in captivity of two specimens of this whale I have never been able to detect the sound alluded to.

Besides the opinions cited by Mr. Bell concerning whales spouting water from their blow-holes, we have other evidence which is most clear and definite, and which ought to be convincing.

We will take first that of Mr. Beale, who as surgeon on board the "Kent" and "Sarah and Elizabeth," South Sea whalers, passed several seasons amongst sperm whales. He says:—

"I can truly say when I find myself in opposition to these old and received notions, that out of the thousands of sperm whales which I have seen during my wanderings in the South and North Pacific Oceans, I have never observed one of them to eject a column of water from the nostril. I have seen them at a distance, and I have been within a few yards of several hundreds of them, and I never saw water pass from the spout-hole. But the column of thick and dense vapour which is certainly ejected is exceedingly likely to mislead the judgment of the casual observer in these matters; and this column does indeed appear very much like a jet of water when seen at the distance of one or two miles on a clear day, because of the condensation of the vapour which takes place the moment it escapes from the nostril, and its consequent opacity, which makes it appear of a white colour, and which is not observed when the whale is close to the spectator. It then appears only like a jet of white steam. The only water in addition is the small quantity that may be lodged in the external fissure of the spout hole, when the animal raises it above the surface to breathe, and which is blown up into the air with the 'spout,' and may probably assist in condensing the vapour of which it is formed. . . . I have been also very close to the *Balæna mysticetus* (the Greenland, or Right whale) when it has been feeding and breathing, and yet I never

saw even that animal differ in the latter respect from the sperm whale in the nature of the spout. . . . If the weather is fine and clear, and there is a gentle breeze at the time, the spout may be seen from the masthead of a moderate-sized vessel at the distance of four or five miles."

Captain Scoresby, who was a veteran and successful whaler, a good zoologist, and a highly intelligent observer, says :—

"A moist vapour mixed with mucus is discharged from the nostrils when the animal breathes ; but no water accompanies it unless an expiration of the breath be made under the surface."

Dr. Robert Brown, who communicated to the Zoological Society, in May, 1868, a valuable series of observations on the mammals of Greenland, made during his voyages to the Spitzbergen, Iceland, and Jan Mayen Seas, and along the eastern and western shores of Davis's Strait and Baffin's Bay to near the mouth of Smith's Sound, remarks, in a chapter on the Right whale (*Balæna mysticetus*) :—

"The 'blowing,' so familiar a feature of the *Cetacea*, but especially of the *Mysticetus*, is quite analogous to the breathing of the higher mammals, and the blow-holes are the homologues of the nostrils. It is most erroneously stated that the whale ejects water from the blow-holes. I have been many times only a few feet from a whale when 'blowing,' and, though purposely observing it, could never see that it ejected from its nostrils anything but the ordinary breath—a fact which might almost have been deduced from analogy. In the cold arctic air this breath is generally condensed, and falls upon those close at hand in the form of a dense spray, which may have led seamen to suppose that this vapour was originally ejected in the form of water. Occasionally, when the whale blows just as it is rising out of or sinking in the sea, a little of the superincumbent water may be forced upwards by the column of breath. When the whale is wounded in the lungs, or in any of the blood-vessels immediately supplying them, blood, as might be expected, is ejected in the death-throes along with the breath. When the whaler sees his prey 'spouting red,' he concludes that its end is not far distant ; it is then mortally wounded."

Captain F. C. Hall, the commander of the unfortunate "Polaris" Expedition, thus describes, in his 'Life with the Esquimaux,' the spout of a whale :—

"What this blowing is like," he says, "may be described by asking if the reader has ever seen the smoke produced by the firing of an old-fashioned flint-lock. If so, then he may understand the 'blow' of a whale—a flash in the pan and all is over."

Captain Scammon, an experienced American whaling captain, who, like Scoresby, could wield well both harpoon and pen, in his fine work on 'The Marine Mammals of the North-Western Coast of America,' writes to the same effect.

Mr. Herman Melville, who is not a naturalist, but has served before the mast in a sperm-whaler and borne his part in all the hardships and dangers of the chase, writes, in his remarkable book, 'The Whale' :—

"As for this 'whale-spout' you might almost stand in it, and yet be undecided as to what it is precisely. Nor is it at all prudent for the hunter to be over curious respecting it. For, even when coming into slight contact with the outer vapoury shreds of the jet, which will often happen, your skin will feverishly smart from the acrimony of the thing so touching you. And I know one who, coming into still closer contact with the spout—whether with some scientific object in view or otherwise I cannot say—the skin peeled off from his cheek and arm. Wherefore, among whalers, the spout is deemed poisonous ; they try to evade it. I have heard it said, and I do not much doubt it, that if the jet were fairly spouted into your eyes it would blind you."

The only other eye-witness I will cite is Mr. Bartlett, of the Zoological Gardens, whose experience and accuracy as an observer of the habits of animals is unsurpassed. He spent an autumn holiday in accompanying the late Mr. Frank Buckland and his colleagues, Messrs. Walpole and Young, in a tour of inquiry into the condition of the herring fishery in Scotland. When the commissioners

left Peterhead, he remained there for a few days as the guest of Captain David Gray, of the steam whaler, "Eclipse," and as it was reported that large whales had been seen in the offing, his host invited him to go in search of them, and pay them a visit in his steam-launch. When about twelve miles out, they saw the whales, which were "finners," at a distance of four or five miles. Fourteen were counted—all large ones—some of which were seventy feet in length. On approaching them the captain shut off steam, and the launch was allowed to float in amongst them. So close were they to the boat that it would not have been difficult to jump upon the back of one of them had that been desirable. Mr. Bartlett tells me that he was greatly astonished by the immense force of the sudden out-rush of air from their blow-holes, and the noise by which it was accompanied. He believes that the blast was strong enough to blow a man off the spiracle if he were seated on it. He authorises me to say that having seen and watched these whales under such favourable circumstances, he entirely agrees with all that I have here written concerning the so-called "spout." The volume of hot, vaporous breath expelled is enormous, and this is accompanied by no small quantity of water, forced up by it when the blow-hole is opened below the surface.

An effect similar in appearance to the whale's spout is produced by the breathing of the hippopotamus. When this great beast opens its nostrils beneath the surface, water and spray are driven and scattered upward by the force of the air, but, of course, do not issue from the nasal passages. I have, also, seen this effect produced, though in a less degree, by the breathing of sea-lions.

I repeat, therefore, that not a drop of sea-water enters or passes out of the blow-hole of a whale. If the spiracle

valve were in a condition to allow it to do so the animal would soon be drowned. Every one knows the extreme irritation and the horrible feeling of suffocation caused to a human being, whilst eating or drinking, by a crumb or a little liquid "going the wrong way"—that is, being accidentally drawn to the air-passages instead of passing to the œsophagus. If water were to enter the bronchi of a whale it would instantly produce similar discomfort.

The neck of a popular error is hard to break; but it is time that one so palpable as that concerning the "spouting" of whales should cease to be promulgated and disseminated by fanciful illustrations of instructive books.

THE "SAILING" OF THE NAUTILUS.

ONE of the prettiest fables of the sea is that relating to the Paper Nautilus, the constructor and inhabitant of the delicate and beautiful shell which looks as if it were made of ivory no thicker than a sheet of writing paper.



FIG. 28.—THE PAPER NAUTILUS (*Argonauta argo*) SAILING.

It is an old belief that in calm weather it rises from the bottom of the sea, and, elevating its two broadly-expanded arms, spreads to the gentle air, as a sail, the membrane, light as a spider's web, by which they are united ; and that,

seated in its boat-like shell, it thus floats over the smooth surface of the ocean, steering and paddling with its other arms. Should storm arise or danger threaten, its masts and sail are lowered, its oars laid in, and the frail craft, filling with water, sinks gently beneath the waves.

When and where this picturesque idea originated I am unable to discover. It dates far back beyond the range of history; for Aristotle mentions it, and, unfortunately, sanctioned it. With the weight of his honoured name in its favour, this fallacy has maintained its place in popular belief, even to our own times; for the mantle of the great father of natural history, who was generally so marvellously correct, fell on none of his successors; Pliny, and Ælian, and the tribe of compilers who succeeded them, having been more concerned to make their histories sensational than to verify their statements.

Naturally, the Paper Nautilus has been the subject of many a poet's verses. Oppian wrote of it in his 'Halieutics':—

"Sail-fish in secret, silent deeps reside,
In shape and nature to the preke * allied;
Close in their concave shells their bodies wrap,
Avoid the waves and every storm escape.
But not to mirksome depths alone confined;
When pleasing calms have stilled the sighing wind,
Curious to know what seas above contain,
They leave the dark recesses of the main;
Now, wanton, to the changing surface haste,
View clearer skies, and the pure welkin taste.
But slow they, cautious, rise, and, prudent, fear
The upper region of the watery sphere;
Backward they mount, and as the stream o'erflows,
Their convex shells to pressing floods oppose.
Conscious, they know that, should they forward move,
O'erwhelming waves would sink them from above,

* The octopus.

Fill the void space, and with the rushing weight,
 Force down th' inconstants to their former seat.
 When, first arrived, they feel the stronger blast,
 They lie supine and skim the liquid waste.
 The natural barks out-do all human art
 When skilful floaters play the sailor's part.
 Two feet they upward raise, and steady keep ;
 These are the masts and rigging of the ship :
 A membrane stretch'd between supplies the sail,
 Bends from the masts, and swells before the gale.
 Two other feet hang paddling on each side,
 And serve for oars to row and helm to guide.
 'Tis thus they sail, pleased with the wanton game,
 The fish, the sailor, and the ship, the same.
 But when the swimmers dread some dangers near
 The sportive pleasure yields to stronger fear.
 No more they, wanton, drive before the blasts,
 But strike the sails, and bring down all the masts ;
 The rolling waves their sinking shells o'erflow,
 And dash them down again to sands below."

Montgomery also thus exquisitely paraphrases the same
 idea in his 'Pelican Island' :—

"Light as a flake of foam upon the wind,
 Kcel upwards, from the deep emerged a shell
 Shaped like the moon ere half her orb is filled.
 Fraught with young life, it righted as it rose,
 And moved at will along the yielding water.
 The native pilot of this little bark
 Put out a tier of oars on either side,
 Spread to the wafting breeze a twofold sail,
 And mounted up, and glided down, the billows
 In happy freedom, pleased to feel the air,
 And wander in the luxury of light."

Byron mentions the Nautilus in his 'Mutiny of the
 Bounty' as follows :—

"The tender Nautilus, who steers his prow,
 The sea-born sailor of his shell canoe,
 The ocean Mab—the fairy of the sea,
 Seems far less fragile, and alas! more free.

He, when the lightning-winged tornadoes sweep
The surge, is safe : his port is in the deep ;
And triumphs o'er the armadas of mankind
Which shake the world, yet crumble in the wind."

The very names by which this animal is known to the science which some persons erroneously think must be so hard and dry are poetic. In Aristotle's day it was called the *Nautilus* or *Nauticus*, "the mariner," and though two thousand two hundred years have passed since the great master wrote, the name still clings to it. As the Pearly Nautilus, a very different animal, also bears that name, Gualtieri perceived the necessity of distinguishing the Paper Nautilus from it, and was followed by Linnæus, who therefore entitled the genus to which the latter belongs *Argonauta*, after the ship *Argo*, in which Jason and his companions sailed to Colchis to carry off the "Golden Fleece" suspended there in the temple of Mars, and guarded by brazen-hoofed bulls, whose nostrils breathed out fire and death, and by a watchful dragon that never slept. According to the Greek legend, the *Argo* was named after its builder Argus, the son of Danaus, and was the first ship that ever was built. Oppian ('*Halicutics*,' book i.) expresses his opinion that the Nautilus served as a model for the man who first conceived the idea of constructing a ship, and embarking on the waters :—

"Ye Powers ! when man first felled the stately trees,
And passed to distant shores on wafting seas,
Whether some god inspired the wondrous thought,
Or chance found out, or careful study sought ;
If humble guess may probably divine,
And trace th' improvement to the first design,
Some wight of prying search, who wond'ring stood
When softer gales had smoothed the dimpled flood,
Observed these careless swimmers floating move
And how each blast the easy sailor drove ;

Hence took the hint, hence formed th' imperfect draught,
 And ship-like fish the future seaman taught.
 Then mortals tried the shelving hull to slope,
 To raise the mast, and twist the stronger rope,
 To fix the yards, let fly the crowded sails,
 Sweep through the curling waves, and court auspicious gales."

Pope, too, in his 'Essay on Man' (Ep. 3), adopted the idea in his exhortation—

"Learn of the little Nautilus to sail,
 Spread the thin oar, and catch the driving gale."

Poetry, like the wizard's spell, can make

"A nutshell seem a gilded barge,
 A sheeling seem a palace large,"

but the equally enchanting wand of science is able by a touch to dispel the illusion, and cause the object to appear in its true proportions. So with the fiction of the "Paper Sailor."

I have elsewhere described the affinities of the Nautilus and their place in nature, therefore it will only be necessary for me here to allude to these very briefly, to explain the great and essential difference that exists between the two kinds of Nautilus which are popularly regarded as being one and the same animal.

The *Pearly Nautilus* (*Nautilus pompilius*) and the Argonaut, which from having a fragile shell of somewhat similar external form is called the *Paper Nautilus*, both belong to that great primary group of animals known as the *Mollusca*, and to the class of it called the *Cephalopoda*, from their having their head in the middle of that which is the foot in other mollusks. In the *Cephalopoda* the foot is split or divided into eight segments in some families, and in others into ten segments, which radiate from the central head, like so many rays. These rays are not only used as

feet, but, being highly flexible, are adapted for employment also as prehensile arms, with which their owner captures its prey, and they are rendered more perfect for this purpose by being furnished with suckers which hold firmly to any surface to which they are applied. The Cephalopods which have the foot divided into ten of these segments or arms are called the *Decapoda*, those which have only eight of them are called the *Octopoda*. All of these have *two* plume-like gills—one on each side—and so are called *Dibranchiata*; and in the eight-armed section of these is the argonaut or Paper Nautilus. Of the Pearly Nautilus and the four-gilled order to which it belongs I shall have more to say by-and-by: at present we will follow the history of the argonaut.

Notwithstanding all that has been written of it, it is only within the last fifty years that this has been correctly understood. An eight-armed cuttle was recognised and named *Ocythoe*, which, instead of having, like the common octopus, all of its eight arms thong-like and tapering to a point, had



FIG. 29.—THE PAPER NAUTILUS (*Argonauta argo*) RETRACTED WITHIN ITS SHELL.

the two dorsal limbs flattened into a broad thin membrane. Although this animal was sometimes seen dead without any covering, it was generally found contained in a thin and slightly elastic univalve shell of graceful form and bearing some resemblance to an elegantly shaped boat. It did not penetrate to the bottom of this shell; it was not attached to it by any muscular ligament, nor was the shell moulded on its body, nor apparently made to fit it. Hence it was long regarded as doubtful, and even by naturalists so

recent and eminent as Dumeril and De Blainville, whether the octopod really secreted the shell, or whether, like the hermit-crab, it borrowed for its protection the shell of some other mollusk. Aristotle left the subject with the faithful acknowledgment: "As to the origin and growth of this shell nothing is yet exactly determined. It appears to be produced like other shells; but even this is not evident, any more than it is whether the animal can live without it." Pliny, as usual, instead of throwing light on the matter, obscured it. He regarded the shell as the property of a gasteropod like the snail, and the octopod as an amateur yachtsman who occasionally went on board and took a trip in the frail craft, and assisted its owner to navigate it for the fun of the thing. This is what he says about it: *

"Mutianus reports that he saw in the Propontis a shell formed like a little ship, having the poop turned up and the prow pointed. An animal called the *Nauplius*, resembling an octopus, was enclosed in the shell with its owner, for its amusement in the following manner. When the sea is calm the guest lowers his arms, and uses them as oars and a helm, whilst the owner of the shell expands himself to catch the wind; so that one has the pleasure of carrying and sailing, and the other of steering. Thus, these two otherwise senseless animals take their pleasure together; but the meeting them sailing in their shell is a bad omen for mariners, and foretells some great calamity."

Although the animal was never found in any other shell, and the shell was never known to contain any other animal, and though, when the shell and the animal were found together they were always of proportionate size, this octopod, as I have said, was looked upon by some conchologists as a pirate who had taken possession of a ship which did not belong to him, until Madame Jeannette Power, a French lady then residing in Messina, having succeeded in keeping alive for a time an argonaut the shell of which had

* *Naturalis Historia*, lib. ix. cap. 30.

been broken in its capture, discovered that the animal quickly repaired the fracture, and reproduced the portions that had been broken off. Induced by this to make further experiments, she kept a number of living argonauts in cages sunk in the sea near the citadel of Messina, and in 1836 laid before the "Academy" at Catania the following results of her observations of them :—

1st. That the argonaut constructs the shell which it inhabits.

2nd. That it quits the egg entirely naked, and forms the shell after its birth.

3rd. That it can repair its shell, if necessary, by a fresh deposit of material having the same chemical composition as its original shell.

4th. That this material is secreted by the palmate, or sail, arms, and is laid on the outside of the shell, to the exterior of which these membranous arms are closely applied.

Madame Power was mistaken on two points. Firstly, the construction of the shell does not commence after the birth of the animal, but, as has been shown by M. Duvernoy, its rudimentary form is distinctly visible by the aid of the microscope in the embryo, whilst still in the egg ; and secondly, she continued to believe in the use of the membranous arms as sails, and of the others as oars. This fallacy was exploded by Captain Sander Rang, an officer of the French navy, and "port-captain" at Algiers, who carefully followed up Madame Power's experiments, and confirmed the more important of them. Thus were set at rest questions which for centuries had divided the opinions of zoologists.

"The 'Paper Nautilus' is, in fact, a female octopod provided with a portable nest, in which to carry about and

protect her eggs, instead of brooding over them in some cranny of a rock, or within the recesses of a pile of shells, as does her cousin the octopus. From the membranes of the two flattened and expanded arms she secretes and, if necessary, repairs her shell, and, by applying them closely to its outer surface on each side, holds herself within it, for it is not fastened to her body by any attaching muscles. When disturbed or in danger she can loosen her hold, and, leaving her cradle, swim away independently of it. It has been said that, having once left it, she has not the ability nor perhaps the sagacity to re-enter her nest, and resume the guardianship of her eggs.* From my own observations of the breeding habits of other octopods I think this most improbable. The use and purpose of the shell of the argonaut will be better understood if I briefly describe what I have witnessed of the treatment of its eggs by its near relative, the octopus.

"The eggs of the octopus," as I have elsewhere said, "when first laid, are small, oval, translucent granules, resembling little grains of rice, not quite an eighth of an inch long. They grow along and around a common stalk, to which every egg is separately attached, as grapes form part of a bunch. Each of the elongated bunches is affixed by a glutinous secretion to the surface of a rock or stone (never to seaweed, as has been erroneously stated), and hangs pendant by its stalk in a long white cluster, like a magnified catkin of the filbert, or, to use Aristotle's simile, like the fruit of the white alder. The length and number of these bunches varies according to the size and condition of the parent. Those produced by a small octopus are seldom more than about three inches long, and from

* Appendix to Sir Edward Belcher's '*Voyage of the Samarang*,' by Mr. Arthur Adams, assistant surgeon to the expedition.

twelve to twenty in number ; but a full-grown female will deposit from forty to fifty of such clusters, each about five inches in length. I have counted the eggs of which these clusters are composed, and find that there are about a thousand in each : so that a large octopus produces in one laying, usually extended over three days, a progeny of from 40,000 to 50,000. I have seen an octopus, when undisturbed, pass one of her arms beneath the hanging bunches of her eggs, and, dilating the membrane on each side of it into a boat-shaped hollow, gather and receive them in it, as in a trough or cradle which exhibited in its general shape and outline a remarkable similarity to the shell of the argonaut, with the eggs of which octopod its own are almost identical in form and appearance. Then she would caress and gently rub them, occasionally turning towards them the mouth of her flexible exhalant and locomotor tube, like the nozzle of a fireman's hose-pipe, so as to direct upon them a jet of the excurrent water. I believe that the object of this syringing process is to free the eggs from parasitic animalcules, and possibly to prevent the growth of conferva, which, I have found, rapidly over-spreads those removed from her attention." *

It has been suggested that the syringing may be for the purpose of keeping the water surrounding the eggs well aerated ; but this is evidently erroneous, for the water ejected from the tube has been previously deprived of its oxygen, and consequently of its health-giving properties, whilst passing over the gills of the parent. Week after week, for fifty days, a brooding octopus will continue to attend to her eggs with the most watchful and assiduous care, seldom leaving them for an instant except to take food, which, without a brief abandonment of her position,

* *The Octopus*, 1873, p. 57.

would be beyond her reach. Aristotle asserted that while the female is incubating she takes no food. This is incorrect ; but in every case of the kind that has come under my observation the mother octopod, whenever she has been obliged to leave her nest, has returned to it as quickly as possible ; and so I believe can, and does, the female argonaut to her shell, and that, too, without any difficulty. In her case the numerous clusters of eggs are all united at their origin to one slender and tapering stalk which is fixed by a spot of glutinous matter to the body-whorl of the spiral shell.

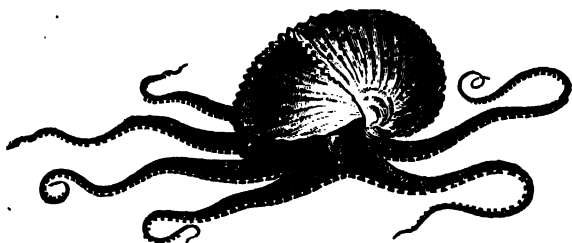


FIG. 30.—THE PAPER NAUTILUS (*Argonauta argo*) CRAWLING.

This "paper-sailor," then, whom the poets have regarded as endowed with so much grace and beauty, and living in luxurious ease, is but a fine lady octopus after all. Turn her out of her handsome residence, and, instead of the fairy skimmer of the seas, you have before you an object apparently as free from loveliness and romance as her sprawling, uncanny-looking, relative. Instead of floating in her pleasure boat over the surface of the sea, the argonaut ordinarily crawls along the bottom, carrying her shell above her, keel uppermost ; and the broad extremities of the two arms are not hoisted as sails, nor allowed when at rest to dangle over the side of the "boat ;" but are used

as a kind of hood by which the animal retains the shell in its proper position, as a man bearing a load on his shoulders holds it with his hands. When she comes to the surface, or progresses by swimming instead of walking, she does so in the same manner as the octopus: namely, by the forcible expulsion of water from her funnel-like tube.

But if truth compels us to deprive her of the counterfeit halo conferred on her by poets, we can award her, on behalf of science, a far nobler crown; namely, that of the Queen of the whole great Invertebrate Animal Kingdom. For the *Cephalopoda*, of which the argonaut is a highly organised member, are not only the highest in their own division, the *Mollusca*, but they are as far superior to all

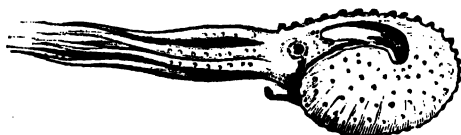


FIG. 31.—THE PAPER NAUTILUS (*Argonauta argo*) SWIMMING.

other animals which have no backbones, as man stands lord and king over all created beings that possess them.

Although in outward shape the spiral shell of the Pearly Nautilus (*Nautilus pompilius*) somewhat resembles that of the argonaut, its internal structure is very different. A section of it shows that it is divided into several chambers, each of which is partitioned off from the adjoining ones, the last formed or external one, in which the animal lives, being much larger than the rest. The object and mode of construction of these chambers is as follows. As the animal grows, a constant secretion of new material takes place on the edge of the shell. By this unceasing process of the addition of new shell in the form of a circular curve

or coil around the older portion, the whole rapidly increases in size, both in diameter, and in the length of the chamber. The Nautilus, requiring to keep the secreting portion of its mantle applied to the lip of the shell, finds the chamber in which it dwells gradually becoming inconveniently long for it, and therefore builds up a wall behind itself, and continues its work of enlarging its premises in front. Each of these walls, concave in front, towards the mouth of the shell, and concave behind, acts as a strong girder and support of the

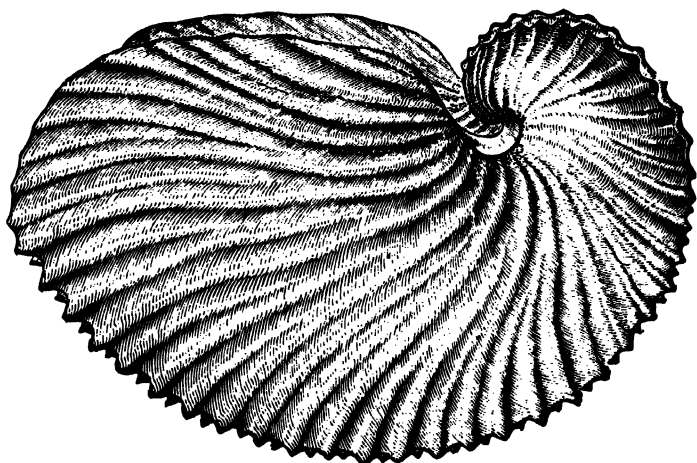


FIG. 32.—SHELL OF THE PAPER NAUTILUS (*Argonauta argo*).

arch of the shell against the inward pressure of deep water : and it was formerly supposed that each successive chamber so constructed and vacated remained filled with air, and *thus* became an additional float by which the constantly increasing weight of the growing shell was counterbalanced. By this beautiful adjustment of augmented floating power to increased weight, the buoyancy of the shell would be secured and its specific gravity maintained as nearly as possible equal to that of the surrounding water. This adjustment does

probably take place, but in a somewhat different manner. As the Nautilus inhabits a depth of from twenty to forty fathoms, it is evident that the air within its shell would be displaced by the pressure of such a column of water.* Accordingly, in every instance of the capture of a Nautilus the chambers of its shell have been found filled with water. It is not improbable that the fluid they contain may be less compressed, and exert less pressure from within outwards

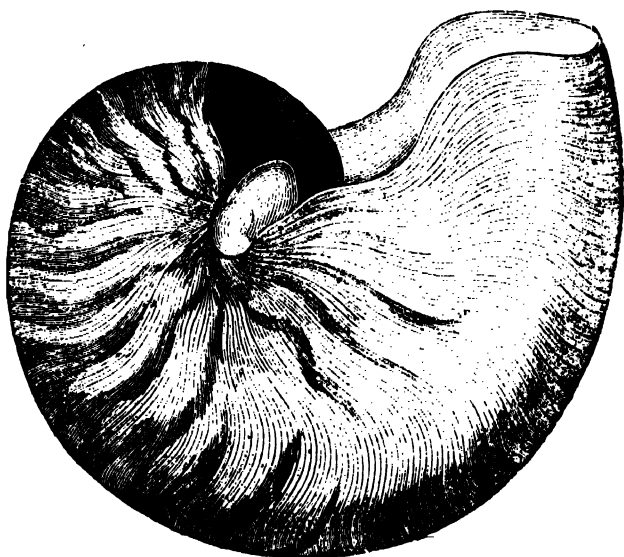


FIG. 33.—SHELL OF THE PEARLY NAUTILUS (*Nautilus pompilius*).

than that of the external superincumbent column of water, and that by this unbalanced pressure—under the same

* "At 100 fathoms the pressure exceeds 265 lbs. to the square inch. Empty bottles, securely corked, and sunk with weights beyond 100 fathoms, are always crushed. If filled with liquid the cork is driven in, and the liquid replaced by salt water; and in drawing the bottle up again the cork is returned to the neck of the bottle, generally in a reversed position."—Sir F. Beaufort, quoted by Dr. S. P. Woodward in his *Manual of the Mollusca*.

hydro-dynamic law which governs its mode of self-propulsion when swimming, and possibly in some degree within the control of the animal—the latter is relieved of much of the weight of its shell. When the Nautilus is at the bottom of the sea its movement is like that of a snail crawling along

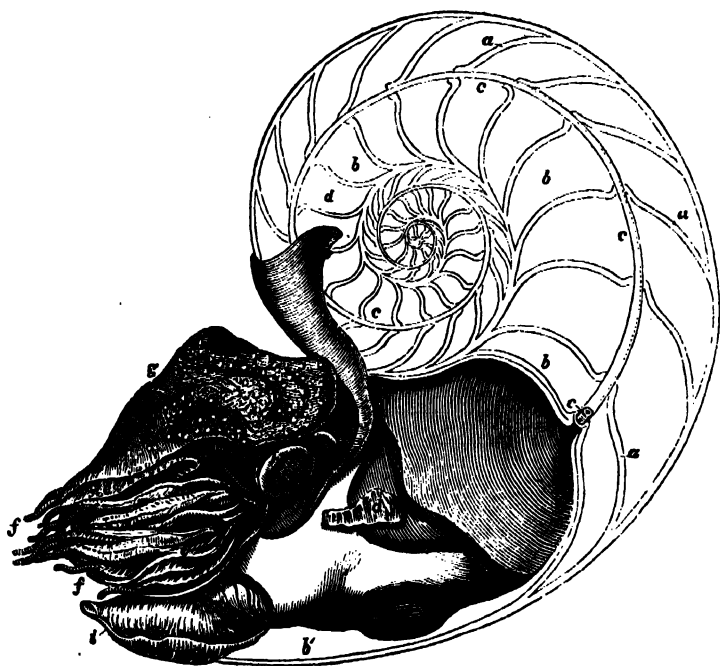


FIG. 34.—THE PEARLY NAUTILUS (*Nautilus pompilius*), AND SECTION OF ITS SHELL. After Professor Owen.

a a, Partitions; *b b*, chambers; *b'*, the last-formed chamber, in which the animal lives; *c c*, the siphuncle; *d*, attaching muscle; *e e*, the hollow arms; *f f*, retractile tentacles; *g*, muscular disk, or foot; *h*, the eye; *i*, position of funnel.

upon the ground with its shell above it. The shell, in proportion to the size of the animal that inhabits it, is a heavy one, and unless it were rendered semi-buoyant, its owner's strength would be severely taxed by the effort to drag it along. By the means indicated this portable

domicile is borne lightly above the body of the Nautilus, without in any way impeding its progress.

The chambers are all connected by a membranous tube slightly coated with nacre, which is connected with a large sac in the body of the animal, near the heart, and passes through a circular orifice and a short projecting tube in the centre of each partition wall, till it ends in the smallest chamber at the inner extremity of the shell. Dean Buckland believed this "syphon" to be an hydraulic apparatus acting as a "fine adjustment" of the specific gravity of the shell, by admitting water within it when expanded, and excluding it when contracted. As it contains an artery and vein near its origin at the mantle, Professor Owen has regarded it as subservient to the maintenance of a low vitality in the vacated portion of the shell. Dr. Henry Woodward is of the opinion that, whilst in the early life of the Nautilus this siphuncle forms the main point of attachment between the animal and its shell, it is in the adult "simply an aborted embryonal organ whose function is now filled by the shell-muscles, but which in the more ancient and straight-shelled representatives of the group (the *Orthoceratites*) was not merely an embryonal but an important organ in the adult."

Every one knows the shell of the Pearly Nautilus. It may be purchased at any shell-shop in a seaside watering-place, and is imported by hundreds every year from Singapore.* It is abundant in the waters of the Indian Archipelago, especially about the Molucca and Philippine Islands, and on the shores of New Caledonia and the Fiji

* I need hardly say that before the nacreous layer of the shell from which this animal takes its name is made visible, an outer deposit of dense calcareous matter has to be removed by hydrochloric acid : the pearly surface thus exposed is then easily polished.

and Solomon Islands. It has also been found alive on Pemba Island, near Zanzibar. It seems strange, therefore, that until about half a century ago hardly anything was known of the animal that secretes and inhabits it. Rumphius, a Dutch naturalist, in his 'Rarities of Amboyna,' published, in 1705, a description of one with an engraving, incorrect in drawing, and deficient in detail; and until 1832 this was the only information which existed concerning it. The great Cuvier never saw one, and being acquainted only with the two-gilled cephalopods, he regarded the head-footed mollusks as absolutely isolated from all other animals in the kingdom of nature, even from the other classes of the mollusca. It seemed, however, to Professor Owen, then only nineteen years of age, that in the only living representative of the four-gilled order, *Nautilus pompilius*, might be found the "missing link." When, therefore, in the year 1824, his fellow-student, Mr. George Bennett, was about to sail from England to the Polynesian Islands, young Richard Owen earnestly charged his friend to do his utmost to obtain, and bring home in alcohol, a specimen of the much-coveted Pearly Nautilus. The opportunity did not occur till one warm and calm Monday evening, the 24th of August, 1829, when a living Nautilus was seen at the surface of the water not far distant from the ship, in Marekini Bay, on the south-west coast of the Island of Erromango, New Hebrides, in the South Pacific Ocean. It looked like a dead tortoise-shell cat, as the sailors said. As it began to sink as soon as it was observed, it was struck at with a boat-hook, and was thus so much injured that it died shortly after being taken on board the ship. The shell was destroyed, but the soft body of the animal was preserved in spirits, and great was the joy of Mr. Owen when, in July, 1831, Mr. Bennett

arrived with it in England, and presented it to the Royal College of Surgeons. Mr. Owen was then Assistant-Conservator of the Museum of the College under Mr. Clift, who was afterwards his father-in-law. He immediately commenced to anatomise, describe, and figure his rare acquisition, and in the early part of 1832 published the result of his work in the form of a masterly treatise, which proved to be the foundation of his future fame.*

Mr. Owen's investigations confirmed his previous supposition that the Pearly Nautilus is inferior in its organisation to octopus, sepia, or any other known cephalopod; that it is not isolated, but that it recedes towards the gasteropods, to which belong the snail, the periwinkle, &c., and that in some of its characters its structure is analogously related to the still lower *annulosa*, or worms. Mr.

* It is so interesting to most of us to know something of the early work of our greatest men, and of the tide in their affairs, which, taken at the flood, led on to fortune, that I hope I may be excused for referring to the period when the distinguished chief of the Natural History Department of the British Museum, the great comparative anatomist, the unrivalled palæontologist, the illustrious physiologist, the venerable and venerated friend of all earnest students, was beginning to attract the attention, and to receive the approbation of his seniors as a promising young worker. In Messrs. Griffith and Pidgeon's Supplement to Cuvier's 'Mollusca and Radiata,' published in 1834, the treatise in question is thus mentioned: "We have much pleasure in referring to a most excellent memoir on *Nautilus pompilius*, by Mr. Owen, with elaborate figures of the animal, its shell, and various parts, published by direction of the Council of the College of Surgeons. The reader will find the most satisfactory information on the subject, and the scientific public will earnestly hope that the present volume will be the first of a similar series." This hope has been more than fulfilled. Dean Buckland, in his 'Bridgewater Treatise,' wrote of this work: "I rejoice in the present opportunity of bearing testimony to the value of Professor Owen's highly philosophical and most admirable memoir—a work not less creditable to the author than honourable to the Royal College of Surgeons, under whose auspices the publication has been so handsomely conducted."

Owen was just about to start for Paris with the intention of presenting a copy of his book to his celebrated contemporary and friend, and of showing him his dissections of the Nautilus which had been the subject of his research, when he heard of Baron Cuvier's death. It must have been to him a great sorrow and a grievous disappointment.

The Pearly Nautilus, then, is a true cephalopod, in that it has its foot divided and arranged in segments around its head, but the form and number of these segments are very different from those of any other of its class. Instead of there being eight, as in the argonaut and octopus, or ten, as in sepia and the calamaries, the Nautilus has about ninety projecting in every direction from around the mouth. They are short, round and tapering, of about the length and thickness of the fingers of a child. Some of them are retractile into sheaths, and they are attached to fleshy processes (which might represent the child's hand), overlying each other, and covering the mouth on each side. They have none of the suckers with which the arms and tentacles of all the other cuttles are furnished, but their annulose structure, like the rings of an earthworm's body, gives them some little prehensile power. None of these numerous finger-like segments of the foot are flattened out like the broad membranous expansions of the argonaut, and, in fact, the Nautilus is without any members which can possibly be regarded as sails to hoist, or as oars with which to row. It has a strong beak, like the rest of the cuttles, but, unlike them, has four gills instead of two; and it has no ink-sac, for its shell is strong enough to afford it the protection which its two-gilled relatives have to seek in concealment.

The Pearly Nautilus usually creeps, like a snail, along the bed of the sea. It lives at the bottom, and feeds

at the bottom, principally on crabs ; and, as Dr. S. P. Woodward says, in his 'Manual of the Mollusca,' "perhaps often lies in wait for them, like some gigantic sea-anemone, with outspread tentacles." The shape of its shell is not well adapted for swimming, but it can ascend to the surface, if it so please, in the same manner as can all the cuttles—namely, by the outflow of water from its locomotor tube. The statement that it visits the surface of the sea of its own accord is at present, however, unconfirmed by observation.

But, if the Pearly Nautilus is the inferior and poor relation of the argonaut, it lives in a handsome house, and comes of an ancient lineage. The Ammonites, whose beautiful whorled and chambered shells, and the casts of them, are so abundant in every stratum, especially in the lias, the chalk, and the oolite, had four gills also. These Ammonites and the Nautili were amongst the earliest occupants of the ancient deep ; and, with the Hamites, Turrilites, and others, lived upon our earth during a great portion of the incalculable period which has elapsed since it became fitted for animal existence, and in their time witnessed the rise and fall of many an animal dynasty. But they are gone now ; and only the fossil relics of more than two thousand species (of which 188 were Nautili) remain to tell how important a race they were amongst the inhabitants of the old world seas. They and their congeners of the chambered shells, however, left one representative which has lived on through all the changes that have taken place on the surface of this globe since they became extinct—namely, *Nautilus pompilius*, the Nautilus of the pearly shell—the last of the Tetrabranchs.

I need offer no apology for endeavouring to explain the difference between the Nautilus of the chambered shell and the argonaut with the membranous arms which it was

supposed to use as sails, when Webster, in his great standard dictionary, describes the one and figures the other as one and the same animal ; and when a writer of the celebrity of Dr. Oliver Wendell Holmes also blends the two in the following poem, containing a sentiment as exquisite as its science is erroneous. I hope the latter distinguished and accomplished author, whose delightful writings I enjoy and highly appreciate, will pardon my criticism. I admit that the beauty of the thought might well atone for its inaccuracy (of which the author is conscious), were it not that the latter is made so attractive that truth appears harsh in disturbing it.

“THE CHAMBERED NAUTILUS.”

“This is the ship of pearl, which poets feign
Sails the unshadowed main,
The venturous bark that flings
On the sweet summer wind its purpled wings,
In gulfs enchanted, where the siren sings,
And coral reefs lie bare,
Where the cold sea-maids rise to sun their streaming hair.

Its webs of living gauze no more unfurl,
Wrecked is the ship of pearl !
And every chambered cell,
Where its dim, dreaming life was wont to dwell,
As the frail tenant shaped his growing shell,
Before thee lies revealed,
Its irised ceiling rent, its sunless crypt unsealed !

Year after year beheld the silent toil
That spread his lustrous coil ;
Still, as the spiral grew,
He left the past year's dwelling for the new,
Stole with soft step its shining archway through,
Built up its idle door,
Stretched in his last-found home, and knew the old no more.

Thanks for the heavenly message brought by thee,
 Child of the wandering sea,
 Cast from her lap forlorn !
From the dead lips a clearer note is born
Than ever Triton blew from wreathèd horn !
 While on mine ear it rings,
Through the deep caves of thought I hear a voice that sings :—

‘ Build thee more stately mansions, O my soul,
 As the swift seasons roll !
 Leave thy low vaulted past ;
Let each new temple, nobler than the last,
Shut thee from heaven with a dome more vast,
 Till thou at length art free,
Leaving thine outgrown shell by life's unresting sea.’ ”

BARNACLE GEESE—GOOSE BARNACLES.

THE belief that some wild geese, instead of being hatched from eggs, like other birds, grew on trees and rotten wood has never been surpassed as a specimen of ignorant credulity and persistent error.

There are two principal versions of this absurd notion. One is that certain trees, resembling willows, and growing always close to the sea, produced at the ends of their branches fruit in form like apples, and each containing the embryo of a goose, which, when the fruit was ripe, fell into the water and flew away. The other is that the geese were bred from a fungus growing on rotten timber floating at sea, and were first developed in the form of worms in the substance of the wood.

When and whence this improbable theory had its origin is uncertain. Aristotle does not mention it, and consequently Pliny and Ælian were deprived of the pleasure they would have felt in handing down to posterity, without investigation or correction, a statement so surprising. It is, comparatively, a modern myth; although we find that it was firmly established in the middle of the twelfth century, for Gerald de Barri, known in literature as Giraldus Cambrensis, mentions it in his '*Topographia Hiberniæ*,' published in 1187. Giraldus, who was Archdeacon of Brecknock in the reign of Henry II., and tried hard, more than once, for the bishopric of St. David's, the functions of which he had temporarily administered without obtaining

the title, was a vigorous and zealous reformer of Church abuses. Amongst the laxities of discipline against which he found it necessary to protest was the custom then prevailing of eating these Barnacle geese during Lent, under the plea that their flesh was not that of birds, but of fishes. He writes :—

“There are here many birds which are called *Bernacæ*, which nature produces in a manner contrary to nature, and very wonderful. They are like marsh-geese but smaller. They are produced from fir-timber tossed about at sea, and are at first like geese upon it. Afterwards they hang down by their beaks, as if from a sea-weed attached to the wood, and are enclosed in shells that they may grow the more freely. Having thus, in course of time, been clothed with a strong covering of feathers, they either fall into the water, or seek their liberty in the air by flight. The embryo geese derive their growth and nutriment from the moisture of the wood or of the sea, in a secret and most marvellous manner. I have seen with my own eyes more than a thousand minute bodies of these birds hanging from one piece of timber on the shore, enclosed in shells and already formed. Their eggs are not impregnated *in coitu*, like those of other birds, nor does the bird sit upon its eggs to hatch them, and in no corner of the world have they been known to build a nest. Hence the bishops and clergy in some parts of Ireland are in the habit of partaking of these birds on fast days, without scruple. But in doing so they are led into sin. For, if any one were to eat of the leg of our first parent, although he (Adam) was not born of flesh, that person could not be adjudged innocent of eating flesh.”

This fable of the geese appears, however, to have been current at least a hundred years before Giraldus wrote, for Professor Max Müller, who treats of it in one of his “Lectures on the Science of Language,” amongst many interesting references there given, quotes a Cardinal of the eleventh century, Petrus Damianus, who clearly describes that version of it which represents the birds as bursting, when fully fledged, from fruit resembling apples.

It is a curious fact that these Barnacle geese have

troubled the priesthood of more than one creed as to the instructions they should give to the laity concerning the use of them as food. The Jews—all those, at least, who maintain a strict observance of the Hebrew Law—eat no meat but that of animals which have been slaughtered in a certain prescribed manner; and a doubt arose amongst them at the period we refer to, whether these geese should be killed as flesh or as fish. Professor Max Müller cites Mordechai,* as asking whether these birds are fruits, fish, or flesh; that is, whether they must be killed in the Jewish way, as if they were flesh. Mordechai describes them as birds which grow on trees, and says, “the Rabbi Jehuda, of Worms (who died 1216) used to say that he had heard from his father, Rabbi Samuel, of Speyer (about 1150), that Rabbi Jacob Tham, of Ramerü (who died 1171), the grandson of the great Rabbi Rashi (about 1140), had decided that they must be killed as flesh.”

Pope Innocent III. took the same view; for at the Lateran Council, in 1215, he prohibited the eating of Barnacle geese during Lent. In 1277, Rabbi Izaak, of Corbeil, determined to be on the safe side, forbade altogether the eating of these birds by the Jews, “because they were neither flesh nor fish.”

Michael Bernhard Valentine,† quoting Wormius, says that this question caused much perplexity and disputation amongst the doctors of the Sorbonne; but that they passed an ordinance that these geese should be classed as fishes, and not as birds; and he adds, that in consequence of this decision large numbers of these birds were annually sent to Paris from England and Scotland, for consumption in

* Riva, 1559, leaf 142^a.

† *Historia Simplicium*, lib. iii. p. 327.

Lent. Sir Robert Sibbald * refers to this, and says that Normandy was the locality from which the French capital was reported to be principally supplied; but that in fact the greater number of these geese came from Holland. The date of this edict is not given.

Professor Max Müller says that in Brittany Barnacle geese are still allowed to be eaten on Fridays, and that the Roman Catholic Bishop of Ferns may give permission to people out of his diocese to eat these birds at his table.

In Bombay, also, where fish is prohibited as food to some classes of the population, the priests call this goose a "sea-vegetable," under which name it is allowed to be eaten.

Various localities were mentioned as the breeding-places of these arboreal geese. Gervasius of Tilbury,† writing about 1211, describes the process of their generation in full detail, and says that great numbers of them grew in his time upon the young willow trees which abounded in the neighbourhood of the Abbey of Faversham, in the county of Kent, and within the Archiepiscopate of Canterbury. The bird was there commonly called the *Barneta*.

Hector Boethius, or Bocce, the old Scottish historian, combats this version of the story. His work, written in Latin, in 1527, was translated into quaint Scottish in 1540, by John Bellenden, Archdeacon of Murray. In his fourteenth chapter, "Of the nature of claik geis, and of the syndry maner of thair procreatioun, And of the ile of Thule," he says:—

"Restis now to speik of the geis generit of the see namit clakis. Sum men belevis that thir clakis growis on treis be the nebbis. Bot thair opinioun is vane. And becaus the nature and procreatioun of thir clakis is strange we have maid na lytyll laubore and deligence to

* *Prodrom. Hist. Nat. Scot.*, part 2, lib. iii. p. 21, 1684.

† *Otia Imperialia*, iii. 123.

serche ye treuth and verite yairof, we have salit throw ye seis quhare thir clakis ar bred, and I fynd be gret experience, that the nature of the seis is mair relevant caus of thir procreatioun than ony uther thyng."

From the circumstances attending the finding of "ane gret tree that was brocht be alluvion and flux of the see to land, in secht of money pepyll besyde the castell of Petslego, in the yeir of God ane thousand iiii. hundred lxxxx, and of a see tangle hyngand full of mussill schellis," brought to him by "Maister Alexander Galloway, person of Kynkell," who knowing him to be "richt desirus of sic uncouth thingis came haistely with the said tangle," he arrives at the conclusion, by a process of reasoning highly satisfactory and convincing to himself, that,

"Be thir and mony othir resorcis and examplis we can not beleif that thir clakis ar productit be ony nature of treis or rutis thairof, but allanerly be the nature of the Oceane see, quhilk is the caus and production of mony wonderful thingis. And becaus the rude and ignorant pepyl saw oftymes the fruitis that fel of the treis (quhilkis stude neir the see) convertit within schort tyme in geis, thai belevit that thir geis grew apoun the treis hingand be thair nebbis sic lik as appillis and uthir frutis hingis be thair stalkis, bot thair opinioun is nocht to be sustenit. For als sone as thir appillis or frutis fallis of the tre in the see flude thay grow first wormeetin. And be schort process of tyme are alterat in geis."

In describing the bird thus produced, Boethius declares that the male has a sharp, pointed beak, like the gallinaceous birds, but that in the female the beak is obtuse as in other geese and ducks.

According to other authors, this wonderful production of birds from living or dead timber was not confined to England and Scotland. Vincentius Bellovacensis * (1190-

* For this quotation and the following one I am indebted to Professor Max Müller's Lecture before referred to.

1264) in his 'Speculum Naturæ,' xvii. 40, states that it took place in Germany, and Jacob de Vitriaco (who died 1244) in his 'Historia Orientalis,' cap. 91, mentions its occurrence in certain parts of Flanders.

Jonas Ramus gives a somewhat different version of the process as it occurs in Norway. He writes : * "It is said that a particular sort of geese is found in Nordland, which leave their seed on old trees, and stumps and blocks lying in the sea ; and that from that seed there grows a shell fast to the trees, from which shell, as from an egg, by the heat of the sun, young geese are hatched, and afterwards grow up ; which gave rise to the fable that geese grow upon trees."

But, strange to say, if any painstaking enquirer, wishing to investigate the matter for himself, went to a locality where it was said the phenomenon regularly occurred, he was sure to find that he had literally, "started on a wild-geese chase," and had come to the wrong place. This was the experience of Æneas Sylvius Piccolomini, afterwards Pope Pius II., who complained that miracles will always flee farther and farther away ; for when he was on a visit (about 1430) to King James I., of Scotland,† and enquired after the tree which he most eagerly desired to see, he was told that it grew much farther north, in the Orkney Islands.

Notwithstanding the suspicious fact that the prodigy receded like Will o' the Wisp, whenever it was persistently followed up, Sebastian Muenster, who relates‡

* 'Description of Norway,' p. 244.

† Æneas Sylvius gives us information concerning the personal appearance of his royal host, whom he describes as "*hominem quadratum et multa pinguedine gravem*,"—literally, "a square-built man, heavy with much fat."

‡ *Cosmographia Universalis*, p. 49, ed. 1572. The original edition was published in 1550.

the foregoing anecdote of Æneas Sylvius, appears to have entertained no doubt of the truth of the report, for he writes :—

“ In Scotland there are trees which produce fruit, conglomerated of their leaves ; and this fruit, when in due time it falls into the water beneath it, is endowed with new life, and is converted into a living bird, which they call the ‘ tree-goose.’ This tree grows in the Island of Pomonia, which is not far from Scotland, towards the north. Several old cosmographers, especially Saxo Grammaticus, mention the tree, and it must not be regarded as fictitious, as some new writers suppose.”

One of the “ new writers ” to whom the eminent German divine and mathematician referred was probably Polydorus Vergilius, who bluntly avowed that he looked upon the whole story as fabulous. For this brusque expression of his opinion he was taken to task by Giralomo Cardano, who told him that he had arrived too rashly at his conclusions, and that before doing so it was his duty to have read the writings of Hector Boetius on the subject, and if he were unable to refute them to have abstained from treating the matter so dogmatically and superciliously.

Cardano, however, whose character was a curious compound of wisdom and folly, weakness and power, evidently found it impossible to give full credence to so strange a phenomenon. After rebuking Polydorus Vergilius for his unreserved disbelief, he, with the caprice and inconsistency for which he was noted, lays before his readers various arguments for and against the possibility of geese being generated in the manner described by Boetius, and, after much seemingly impartial consideration of the subject, quits it as one open to grave doubts, and requiring further and more precise evidence to substantiate it.*

Cardano having taken this view of the matter in dispute,

* *De Rerum Varietate*. lib. vii. cap. 36, 1557.

we may, of course, expect to see his bitter opponent, Julius Cæsar Scaliger,* appear (probably more satirically than sincerely) as a champion on the other side. Accordingly, we find him not only prepared to challenge the correctness of Cardano's judgment, but also giving publicity to a new version of the legend, in which it is asserted that the leaves which fall from the tree into the water are converted into fishes, and those which fall upon the land become birds. In his "*Exercitationes*,"† addressed to Girolamo Cardano, Scaliger says:—

"I must not pass over in silence that which is reported of a river in Juverna (Ireland), namely, that a certain tree grows on its banks the leaves of which when they fall into its water assume the form of fishes. These fishes come to life—a phenomenon which, on careful consideration, appears to be attributable less to any power or property of the said river than to the tree itself; for those leaves of the latter which

* Julius Cæsar Scaliger, born in 1484, probably at Padua, was one of the most celebrated of the many great writers of the sixteenth century. He was a man of real talent, but, also, of unbounded vanity and unscrupulous ambition. Originally baptized "Jules," he added "Cæsar" to his name, and, to enhance his own merits by the *éclat* of high birth, made for himself a false genealogy, and asserted that he was the hero of adventures in which he had taken no part. In order to force himself into notice, he attacked Erasmus, and in two harangues, which the latter disdained to answer, used towards him the grossest invectives. Scaliger next directed his insolent hostility against Giralomo Cardano. Jealous of the fame of the great Pavian physician and mathematician, he, in a critique containing more insults than arguments, ferociously assailed Cardano's treatise, *De Subtilitate*, and so exaggerated was the estimate he formed of the effect of his diatribes on the objects of his malice, that, when Erasmus died, and a false rumour was spread abroad of the decease of Cardano, he believed, or affected to believe, that the death of both had been caused by his conduct towards them, and, in fulsome terms of eulogy, expressed his regret for having deprived the world of letters of two such valuable lives. Scaliger died in 1558, aged seventy-five years.

† *Exoticarum Exercitationum Liber XV. De subtilitate; ad Hieronymum Cardanum. Paris, 1557. Exercit 59, sect. 2.*

fall upon the land are transformed into flying birds. And you will be still more astonished to learn that in the British seas a bird like a duck, of a species unknown to you, hangs by the beak to fragments of

Portrait de l'Arbre, lequel estant pourry, produit des vers, puis des canards vivans & volans.



FIG. 35.—THE TREE THAT WHEN ROTTEN PRODUCES WORMS WHICH ARE DEVELOPED INTO LIVING AND FLYING DUCKS. *After Claude Duret, 1605.*

old and rotten wood, the remains of wrecked vessels, from which it ultimately becomes detached, and flies away in quest of the fishes which are its natural food. We have seen these birds. The Gascons who live on the sea-coast call them Crabrans. The Britons call them

Bernachiæ ; and this word is also used by them proverbially to designate a person whom they wish to rebuke for indolence and vacillation ;

Portraict de l'Arbre qui porte des feuilles, lesquelles tombées sur terre se convertent en oiseaux volans, & celles qui tombent dans les eaux se muent en poissons.



FIG. 36.—THE TREE WHOSE LEAVES WHEN THEY FALL ON THE LAND ARE CHANGED INTO BIRDS, AND WHEN THEY FALL INTO WATER BECOME FISHES. *After Claude Duvel, 1605.*

as much as to say that he is neither flesh nor fish. The following is the history of a most remarkable prodigy. There was brought to the French King a shell, not very large, within which was a little bird,

almost perfect even to the points of its wings, its beak, and its feet. It still adhered to the shell by the tip of its beak. Learned men of whom the king was the encouraging and munificent patron were of the opinion that the flesh of the shell-fish had been transformed into that of the bird."

So completely was the statement that geese were produced from the fruit of trees, or generated from rotten timber, accepted as true in the sixteenth century, that Guillaume de Saluste, the Sieur du Bartas, in his "*La Semaine*," a Miltonic poem, published in 1578, in which the first few days of the existence of all terrestrial things are described reverently and with considerable power, represents Adam as wandering through the garden of Eden, and regarding with astonishment, amongst other wonders of the earthly Paradise in which he had been placed, these goose-bearing trees.

*"L'arbre qui va portant sur ses branches tremblantes
Et les peuples nageurs et les troupes volantes;
Fentens l'Arbre aujourdhuy en Juverne vivant
Dont le feuillage espars, par les souspirs du vent,
Est métamorphosé d'une vertu féconde
Sur terre en vrays oiseaux, en vrays poissons sur Ponde;"**

which his translator, Sylvester, thus renders:—

"And then that tree from off whose trembling top
Both swimming shoals and flying troupes doe drop;
I mean that tree, now in Juverna growing,
Whose leaves, disperst by Zephyrs wanton blowing,
Are metamorphosed, both in form and matter,
On land to fowls, to fishes in the water."†

* *La Seconde Semaine, 1^e jour.*

† Du Bartas. His Divine Weekes and Workes; translated and dedicated to the King's most excellent Maiestie by Joshua Sylvester London, 1584.

In another part of the same poem, Du Bartas, referring to animals growing without natural parentage, writes :—

*“ Ainsi sous soi Bôôte és glâceuses campagnes
Tardif, void des oysons qu'on appelle Gravaignes,
Qui sont fils (comme on dit) de certains arbrisseaux
Qui leur feuille féconde anime dans les eaux.
Ainsi le vieil fragment d'une barque se change
En des canards volans : ô changement estrange !
Mesme corps fut jadis arbre verd, puis vaisseau
Naguieres champignon, et maintenant oyseau.”**

Of this, Sylvester gives the following English version :—

“ So slow Bôôtes underneath him sces,
In th' icy isles, those goslings hatched on trees,
Whose fruitful leaves, falling into the water,
Are turned, they say, to living fowls soon after ;
So rotten sides of broken ships do change,
To barnacles, O, transformation strange !
'Twas first a green tree ; then a gallant hull ;
Lately a mushroom ; then a flying gull.”

Thus this extraordinary belief held sway, and remained strong and invincible, although from time to time some man of sense and independent thought attempted to turn the tide of popular error. Albertus Magnus (who died 1280) showed its absurdity, and declared that he had seen the bird referred to lay its eggs and hatch them in the ordinary way. Roger Bacon (who died in 1294) also contradicted it, and Belon, in 1551, treated it with ridicule and contempt. Olaus Wormius† seems to have belieyed in it, though he wrote cautiously about it. Olaus Magnus (1553) mentions it, and apparently accepts it as a fact, occurring in the Orkneys, on the authority of “a Scotch historian

* *La première semaine, 6^e jour.*

† *Museum*, p. 257.

who diligently sets down the secrets of things," and then dismisses it in three lines.

Passing over many other writers on the subject, we come to the time of the reign of Queen Elizabeth, when (in 1597) "John Gerarde, Master in Chirurgerie, London," published his "Herball, or Gencrall Historie of Plants gathered by him," and in the last chapter thereof solemnly declared, that he had actually witnessed the transformation of "certaine shell fish" into Barnacle Geese, as follows.

Of the Goose tree, Barnacle tree, or the tree bearing Geese.

Britanica Concha anatifera.

THE BREED OF BARNACLES.

¶ *The Description.*

Hauing trauelled from the Grasses growing in the bottome of the fenny waters, the Woods, and mountaines, euen vnto Libanus itselſe ; and also the sea, and bowels of the same, wee are arriued at the end of our History ; thinking it not impertinent to the conclusion of the same, to end with one of the maruels of this land (we may say of the World). The history whereof to set forth according to the worthinesse and raritie thereof, would not only require a large and peculiar volume, but also a deeper search into the bowels of Nature, then my intended purpose will suffer me to wade into, my sufficiencie also considered ; leauing the History thereof rough hewen, vnto some excellent man, earned in the secrets of nature, to be both fined and refined ; in the meane space take it as it falleth out, the naked and bare truth, though vnpolished. There are found in the North parts of Scotland and the Islands adiacent, called Orchades, certaine trees whereon do grow certaine shells of a white colour tending to russet, whercin are contained little liuing creatures : which shells in time of maturity doe open, and out of them grow those little liuing things, which falling into the water do become fowles, which we call Barnacles ; in the North of England, brant Geese ; and in Lancashire, tree Geese : but the other that do fall vpon the land perish and come to nothing. Thus much by the

writings of others, and also from the mouthes of people of those parts, which may very well accord with truth.

But what our eies haue seene, and hands haue touched we shall declare. There is a small Island in Lancashire, called the Pile of Foulders, wherein are found the broken pieces of old and bruised ships some whereof haue beene cast thither by shipwracke, and also the trunks and bodies with the branches of old and rotten trees, cast vp there likewise ; whereon is found a certaine spume or froth that in time breedeth vnto certaine shells, in shape like those of the Muskle, but sharper pointed, and of a whitish colour ; wherein is contained a thing in forme like a lace of silke finely wouen as it were together, of a whitish colour, one end whereof is fastened vnto the inside of the shell, euen as the fish of Oisters and Muskles are : the other end is made fast vnto the belly of a rude masse or lumpe, which in time commeth to the shape and forme of a Bird : when it is perfectly formed the shell gapeth open, and the first thing that appeareth is the foresaid lace or string ; next come the legs of the bird hanging out, and as it groweth greater it openeth the shell by degrees, til at length it is all come forth, and hangeth onely by the bill : in short space after it commeth to full maturitie, and falleth into the sea, where it gathereth feathers, and groweth to a fowle bigger than a Mallard, and lesser than a Goose, hauing blacke legs and bill or beake, and feathers blacke and white, spotted in such manner as is our Magpie, called in some places a Pie-Annet, which the people of Lancashire call by no other name than a tree Goose : which place aforesaid, and all those parts adjoyning do so much abound therewith, that one of the best is bought for three pence. For the truth hereof, if any doubt, may it please them to repaire vnto me, and I shall satisfie them by the testimonie of good witnesses.

Moreover, it should seeme that there is another sort hereof ; the History of which is true, and of mine owne knowledge ; for traueilling vpon the shore of our English coast betweene Douer and Rumney, I found the trunk of an old rotten tree, which (with some helpe that I procured by Fishermen's wiues that were there attending their husbands' returne from the sea) we drew out of the water vpon dry land ; vpon this rotten tree I found growing many thousands of long crimson bladders, in shape like vnto puddings newly filled, before they be sodden, which were very cleere and shining ; at the nether end whereof did grow a shell fish, fashioned somewhat like a small Muskle, but much whiter, resembling a shell fish that groweth vpon the rockes about Garnsey and Garsey, called a Lympit : many of these shells I

brought with me to London, which after I had opened I found in them living things without forme or shape ; in others which were neerer

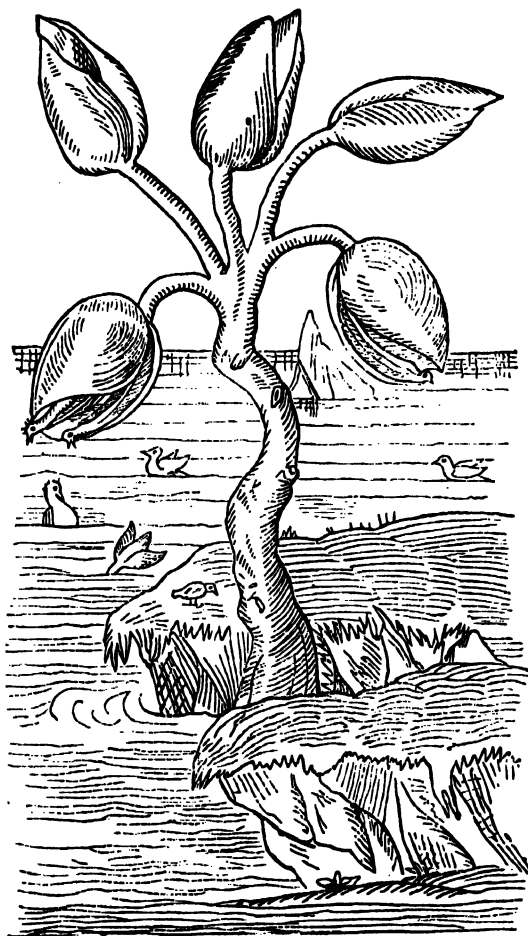


FIG. 37.—THE GOOSE TREE. Copied from Gerard's *'Herball,'* 1st edition, 1597.*

come to ripenesse I found living things that were very naked, in shape like a Bird : in others, the Birds covered with soft downe, the shell

* The original of this picture is a small wood-cut in Matthias de Lobel's *'Stirpium Historia,'* published in 1570. The birds within the shells were added by Gerard. Aldrovandus, in copying it, gave leaves to the tree, as shown on page 302.

halfe open, and the Bird ready to fall out, which no doubt were the Fowles called Barnacles. I dare not absolutely auouch euery circumstance of the first part of this history, concerning the tree that beareth those buds aforesaid, but will leaue it to a further consideration ; howbeit, that which I haue seene with mine eies, and handled with mine hands, I dare confidently auouch, and boldly put downe for verity. Now if any will object that this tree which I saw might be one of those before mentioned, which either by the waues of the sea or some violent wind had beene ouerturned as many other trees are ; or that any trees falling into those seas about the Orchades, will of themselves bear the like Fowles, by reason of those seas and waters, these being so probable conjectures, and likely to be true, I may not without prejudice gainsay, or endeauour to confute.

¶ *The Place.*

The bordes and rotten planks whereon are found these shels breeding the Barnakle, are taken vp in a small Island adioyning to Lancashire, halfe a mile from the main land, called the Pile of Foulders.

¶ *The Time.*

They spawn as it were in March and Aprill ; the Geese are formed in May and June, and come to fulnesse of feathers in the moneth after.

And thus hauing through God's assistance discoursed somewhat at large of Grasses, Herbes, Shrubs, Trees, and Mosses, and certaine Excrescences of the Earth, with other things moe, incident to the historie thereof, we conclude and end our-present Volume, with this wonder of England. For the which God's name be cuer honored and praised.

Gerard was probably a good botanist and herbalist ; but Thomas Johnson, the editor of a subsequent issue of his book, tells us that

“ He, out of a propense good will to the publique advancement of this knowledge, endeavoured to performe therein more than he could well accomplish, which was partly through want of sufficient learning ; but,” he adds, “ let none blame him for these defects, seeing he was neither wanting in pains nor good will to performe what hee intended : and there are none so simple but know that heauie burthens are with

most paines vndergone by the weakest men ; and although there are many faults in the worke, yet iudge well of the Author ; for, as a late writer well saith :—‘To err and to be deceived is human, and he must seek solitude who wishes to live only with the perfect.’”

It is difficult to comply with the request to think well of one who, writing as an authority, deliberately promulgated, with an affectation of piety, that which he must have

Conchæ antiſeræ ex arbore dependentes.

Müſcheln, ſo Bäume tragen.

16.



FIG. 38.—THE BARNACLE GOOSE TREE. *After Aldrovandus.*

known to be untrue, and who was, moreover, a shameless plagiarist ; for Gerard's ponderous book is little more than a translation of Dodonæus, whole chapters having been taken verbatim and without acknowledgment from that comparatively unread author.

After this series of croneous observations, self-delusion, and ignorant credulity, it is refreshing to turn to the pages

of the two little thick quarto volumes of Gaspar Schott.* This learned Jesuit made himself acquainted with everything that had been written on the subject, and besides the authors I have referred to, quotes and compares the statements of Majolus, Abrahamus Ortelius, Hieronymus Cardanus, Eusebius, Nierembergius, Deusingius, Odoricus, Gerhardus de Vera, Ferdinand of Cordova, and many

*Conchas anatiferae triplico
adhaerentes ex Lobdio.*
• 17 •

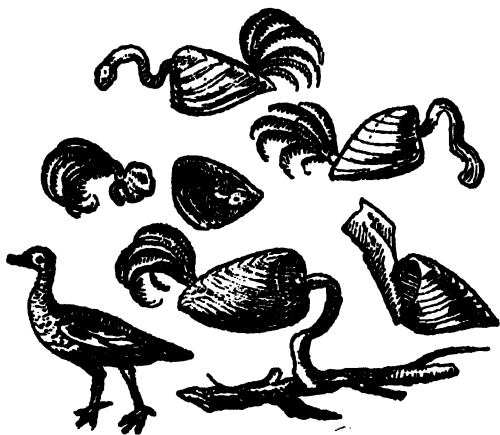


FIG. 39.—DEVELOPMENT OF BARNACLES INTO GEESE. *After Aldrovandus.*

others. He then gives, firmly and clearly, his own opinion that the assertion that birds in Britain spring from the fruit or leaves of trees, or from wood, or from fungus, or from shells, is without foundation, and that neither reason, experience, nor authority tend to confirm it. He concedes that worms may be bred in rotting timber, and even that they may be of a kind that fly away on arriving at

* *Physica Curiosa, sive Mirabilia Naturæ et Artis*, 1662, lib. cap. xxii. p. 960.

maturity (referring probably to caterpillars being developed into moths), but that birds should be thus generated, he says, is simply the repetition of a vulgar error, for not one of the authors whose works he has examined has seen what they all affirm ; nor are they able to bring forward a single eye-witness of it. He asks how it can be possible that animals so large and so highly-organised as these birds can grow from puny animalcules generated in putrid wood. He further declares that these British geese are hatched from eggs like other geese, which he considers proved by the testimony of Albertus Magnus, Gerhardus de Vera, and of Dutch seamen, who, in 1569, gave their written declaration that they had personally seen these birds sitting on their eggs, and hatching them, on the coasts of Nova Zembla.

In marked and disgraceful contrast with this careful and philosophical investigation and its author's just deductions from it, is 'A Relation' concerning Barnacles by Sir Robert Moray, lately one of His Majesty's Council for the Kingdom of Scotland,' read before the Royal Society, and published in the 'Philosophical Transactions,' No. 137, January and February, 1678.

People had begun to see the absurdity of the story, and the fallacy was dying out, when this sage philosopher, a distinguished Fellow of the Royal Society, and who, I find, was "nominated vice-president and sworn as such," July 18th, 1666, undertook to investigate the subject, and made a journey northward for that purpose. The account he gave of his precious researches, and the publication of it under the auspices of so learned a body of *savants*, partly reinstated the error in popular opinion, though only for a short time.

Describing "a cut of a large Fir-tree of about two and a half feet diameter, and nine or ten feet long," which he

saw on the shore in the Western Islands of Scotland, and which had become so dry that many of the Barnacle shells with which it had been covered had been rubbed off, he says:—

“Only on the parts that lay next the ground there still hung multitudes of little Shells, having within them little Birds, perfectly shap’d, supposed to be Barnacles. The Shells hung very thick and close one by another, and were of different sizes. Of the colour and consistence of Muscle-Shells, and the sides and joynts of them joynd with such a kind of film as Muscle-Shells are, which serves them for a Hing to move upon, when they open and shut. . . . The Shells hang at the Tree by a Neck longer than the Shell, of a kind of Filmy substance, round, and hollow, and creased, not unlike the Wind-pipe of a chicken, spreading out broadest where it is fastened to the Tree, from which it seems to draw and convey the matter which serves for the growth and vegetation of the Shell and the little Bird within it. This Bird in every Shell that I opened, as well the least as the biggest, I found so curiously and compleatly formed, that there appeared nothing wanting as to internal parts, for making up a perfect Sea-fowl: every little part appearing so distinctly that the whole looked like a large Bird seen through a concave or diminishing glass, colour and feature being everywhere so clear and neat. The little Bill, like that of a Goose; the eyes marked; the Head, Neck, Breast, Wings, Tail, and Feet formed, the Feathers everywhere perfectly shap’d, and blackish coloured; and the Feet like those of other Water-fowl, to my best remembrance. All being dead and dry, I did not look after the internal parts of them. Nor did I ever see any of the little Birds alive, nor met with anybody that did. Only some credible persons have assured me they have seen some as big as their fist.”

It seems almost incredible that little more than two hundred years ago this twaddle should not only have been laid before the highest representatives of science in the land, but that it should have been printed in their “Transactions” for the further delusion of posterity.* Dr. Tancred

* Sir Robert Moray seems to have been fond of marvels. In Birch’s ‘History of the Royal Society’ (vol. ii. p. 41) we find the following entry relative to a meeting of the Society held April 26th,

Robinson subsequently contradicted Sir Robert Moray and assured the society that "the Brent Geese were bred, like other geese, from eggs laid by the females, and that the shell which it was pretended contained them had nothing in it but a 'fish,' such as oysters, cockles, and all other shells."

Ray, in his edition of Willughby's *Ornithology*, published in the same year as the above, contradicted the fallacy as strongly as Gaspar Schott; and (except that he incidentally admits the possibility of spontaneous generation in some of the lower animals, as insects and frogs) in language so similar that I think he must have had Schott's work before him when he wrote.

Aldrovandus* tells us that an Irish priest, named Octavianus, assured him, with an oath on the Gospels, that he had seen and handled the geese in their embryo condition; and he adds that he "would rather err with the majority than seem to pass censure on so many eminent writers who have believed the story."

In 1629 Count Maier (Michaelus Meyerus—these old authors when writing in Latin, latinized their names also) published a monograph 'On the Tree-bird'† in which he explains the process of its birth, and states that he opened a hundred of the goose-bearing shells and found the rudiments of the bird fully formed.

Now, let us turn from fiction to facts.

1665:—"Sir Robert Moray affirmed that he had known a man who could take two or three pipes of tobacco into his stomach before he let out any smoke; and then let it out afterwards all together. This was seconded by Mr. Evelyn, who remarked that he had seen a person who after taking tobacco would discourse awhile before he let out the smoke."

* *Ornithologia*, lib. xix. p. 173, ed. 1603.

† *De Volucris Arborea*, 1629.

Almost every one is acquainted with at least one kind of the Barnacle shells which were supposed to enclose the embryo of a goose, namely the small white conical hillocks which are found, in tens of thousands, adhering to stones, rocks, and old timber such as the piles of piers, and may be seen affixed to the shells of oysters and mussels in any fishmonger's shop. The little animals which secrete and inhabit these shells belong to a sub-class and order of the Crustacea, called the *Cirrhopoda*, because their feet (*poda*), which in the crab and lobster terminate in claws, are modified into tufts of curled hairs (*cirri*), or feathers. When

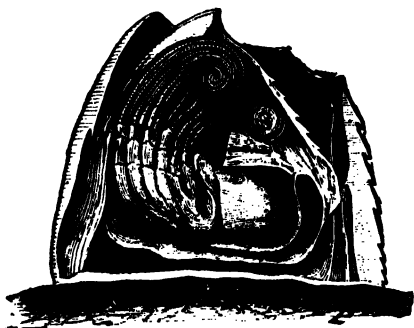


FIG 40.—SECTION OF A SESSILE BARNACLE. *Balanus tintinnabulum*.

the animal is alive and active under water, a crater may be seen to open on the summit of the little shelly mountain, and, as if from the mouth of a miniature volcano, there issue from this aperture, from between two inner shells, the *cirri* in the form of a feathery hand, which clutches at the water within its reach, and is then quickly retracted within the shell. During this movement the hair-fringed fingers have filtered from the water and conveyed towards the mouth within the shell, for their owner's nutriment, some minute solid particles or animalcules, and this action of the casting-net alternately shot forth and retracted continues

for hours incessantly, as the water flows over its resting-place. The animal can live for a long time out of water, and in some situations thus passes half its life. Under such circumstances, the shells, containing a reserve of moisture, remain firmly closed until the return of the tide brings a fresh supply of water and food. These are the "acorn-barnacles," the *balani*, commonly known in some localities as "chitters."

Barnacles of another kind are those furnished with a long stem, or peduncle, which Sir Robert Moray described as "round, hollow, and creased, and not unlike the wind-pipe of a chicken." The stem has, in fact, the ringed formation of the annelids, or worms. The shelly valves are thin, flat and in shape somewhat like a mitre. They are composed of five pieces, two on each side, and one, a kind of rounded keel along the back of the valves, by which these are united. The shells are delicately tinted with lavender or pale blue varied with white, and the edges are frequently of a bright chrome yellow or orange colour.

It is not an uncommon occurrence for a large plank entirely covered with these "necked barnacles" to be found floating at sea and brought ashore for exhibition at some watering-place; and I have more than once sent portions of such planks to the Aquaria at Brighton, and the Crystal Palace.

It is most interesting to watch a dense mass of living cirripedes so closely packed together that not a speck of the surface of the wood is left uncovered by them; their fleshy stalks overhanging each other, and often attached in clusters to those of some larger individuals; their plumose casting-nets ever gathering in the food that comes within their reach, and carrying towards the mouth any solid particles suitable for their sustenance. How

much of insoluble matter barnacles will eliminate from the water is shown by the rapidity with which they will render turbid sea water clear and transparent. The most common species of these "necked barnacles" bears the name of "*Lepas anatifera*," "the duck-bearing *Lepas*." It was so entitled by Linnæus, in recognition of its having been connected with the fable, which, of course, met with no credit from him.



FIG. 41.—PEDUNCULATED BARNACLES. (*Lepas anatifera*.)

Fig. 42, on next page, represents the figure-head of a ship, partly covered with barnacles, which was picked up about thirty miles off Lowestoft on the 22nd of October, 1857. It was described in the *Illustrated London News*, and the proprietors of that paper have kindly given me a copy of the block from which its portrait was printed.

Others of the barnacles affix themselves to the bottoms of ships, or parasitically upon whales and sharks, and those of the latter kind often burrow deeply into the skin of

their host. Fig. 43 is a portrait of a *Coronula diadema* taken from the nose of a whale stranded at Kintradwell, in the north of Scotland, in 1866, and sent to the late Mr. Frank Buckland. Growing on this *Coronula* are three of the curious eared barnacles, *Conchoderma aurita*, the *Lepas aurita* of Linnæus. The species of the whale from which these Barnacles were taken was not mentioned, but it was probably the "hunch-backed" whale, *Megaptera longimana*, which is generally infested with this *Coronula*. This very



FIG. 42.—A SHIP'S FIGURE-HEAD WITH BARNACLES ATTACHED TO IT.

illustrative specimen was, and I hope still is, in Mr. Buckland's Museum at South Kensington. It was described by him in *Land and Water*, of May 19th, 1866, and I am indebted to the proprietors of that paper for the accompanying portrait of it.

The young Barnacle when just extruded from the shell of its parent is a very different being from that which it will be in its mature condition. It begins its life in a form exactly like that of an entomostracous crustacean, and, like a Cyclops, has one large eye in the middle of its fore-

head. In this state it swims freely, and with great activity. It undergoes three moults, each time altering its figure, until at the third exuviation it has become enclosed in a

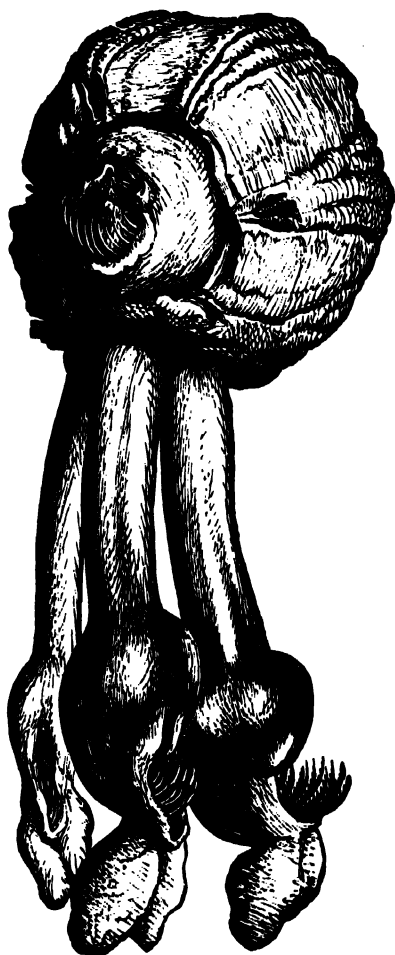


FIG. 43.—WHALE BARNACLE (*Coronula diadema*), WITH THREE *Conchoderma aurita* ATTACHED TO IT.

bivalve shell, and has acquired a second eye. It is now ready to attach itself to its abiding-place ; so, selecting its

future residence, it presses itself against the wood, or whatever the substance may be, pours out from its two antennæ a glutinous cement, which hardens in water, and thus fastens itself by the front of its head, is henceforth a fixture for

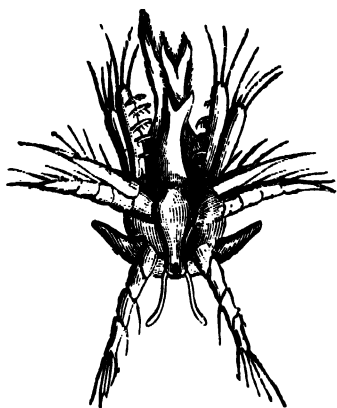


FIG. 44.—A YOUNG BARNACLE. (*Larva of Chthamalus stellatus.*)

life, and assumes the adult form in which most persons know it best.*

* If any of my readers wish to observe the development of young barnacles they may easily do so. The method I have generally adopted has been as follows : Procure a shallow glass or earthenware milk-pan that will hold at least a gallon. Fill this to within an inch of the top with sea-water, and place it in any shaded part of a room—not in front of a window. Put in the pan six or eight pebbles or clean shells of equal height, say $1\frac{1}{2}$ or 2 inches, and on them lay a clean sheet of glass, which, by resting on the pebbles, is brought to within about $2\frac{1}{2}$ inches of the surface of the water. Select some limpets or mussels having acorn-barnacles on them ; carefully cut out the limpet or mussel, and clean nicely the interior of the shell ; then place a dozen or more of these shells on the sheet of glass, and the barnacles upon them will be within convenient reach of any observation with a magnifying glass. If this be done in the month of March, the experimenter will not have to wait long before he sees young *Balani* ejected from the summits of some of the shells. Up to the moment of their birth each of them is enclosed in a little cocoon or case, in shape like a canary-seed, and most of them are tossed into the world whilst still enclosed in this. In a few seconds this casing is ruptured longi-

It is unnecessary for me to describe more minutely the anatomy of the Cirripedes; I have said enough to show the nature of the plumose appurtenances which, hanging from the dead shells, were supposed to be the feathers of a little bird within; but it is difficult to understand how any one could have seen in the natural occupant of the shell "the little bill, like that of a goose, the eyes, head, neck, breast, wings, tail, and feet, like those of other water-fowl," so precisely and categorically detailed by Sir Robert Moray. As Pontoppidan, who denounced the whole story, as being "without the least foundation," very truly says, "One must take the force of imagination to help to make it look so!"

As to the origin of this myth, I venture to differ from

tudinally, apparently by the struggles of its inmate, which escapes at one end, like a butterfly emerging from its chrysalis, and swims freely to the surface of the water, leaving the split cocoon or case at the bottom of the pan. Some few of the young barnacles seem to be freed from the cocoon before, or at the moment of, extrusion. From three to a dozen or more of these escape with each protrusion of the cirri of the parent, and as the parturient barnacle will put forth its feathery casting net at least twenty times in a minute for an hour or more, it follows that as many as ten thousand young ones may be produced in an hour. These, as they are cast forth at each pulsation of the parent's cirri, fall upon the clean sheet of glass, and may be taken up in a pipette, and placed under a microscope, or removed to a smaller vessel of sea-water, for minute and separate investigation. It seems strange that animals which, like the oyster and the barnacles, are condemned in their mature condition to lead so sedentary a life, should in the earlier stages of their existence swim freely and merrily through the water—young fellows seeking a home, and when they have found it, although their connubial life must be a very tame one, settling down, and not caring to rove about any more for the remainder of their days. These young *Balani* dart about like so many water-fleas, and yet, after a few days of freedom, they become fixed and immovable, the inhabitants of the pyramidal shells which grow in such abundance on other shells, stones, and old wood.

philologists who attribute it entirely to "language," "the power of popular etymology," and "a similarity of names;" for, although, as Professor Max Müller truly observes in one of his lectures, "words without definite meanings are at the bottom of nearly all our philosophical and religious controversies," it certainly is not applicable in this instance. Every quotation here given shows that the mistake arose from the supposed resemblance of the plumes of the cirrhopod, and the feathers of a bird, and the fallacious deductions derived therefrom. The statements of Gerard (p. 298), Maier (p. 306), Sir Robert Moray (p. 304), &c., prove that this fanciful misconception sprang from erroneous observation. The love of the marvellous inherent in mankind, and especially prevalent in times of ignorance and superstition, favoured its reception and adoption, and I believe that it would have been as widely circulated, and have met with equal credence, if the names of the cirripede and of the goose that was supposed to be its offspring had been far more dissimilar than, at first, they really were. For this is not the only instance of a downy substance found upon a tree or plant having given rise to a report that the animal whose covering it resembled was itself of vegetable growth. The equally absurd belief that lambs grew on trees in Tartary was curiously analogous to it. The story of "the Scythian Lamb" is, however, too long to be introduced parenthetically here; therefore, although it has an important bearing on the origin and acceptance of such fictions, I can only cursorily refer to it, for it is not a Fable of the Sea.

Setting aside several ingenious and far-fetched derivations that have been proposed, I think we may safely regard the word "barnacle," as applied to the cirrhopod

as a corruption of *pernacula*, the diminutive of *perna*, a bivalve mollusk, so-called from the similarity in shape of its shell to that of a ham—*pernacula* being changed to *bernacula*. In some old Glossaries *perna* is actually spelt *berna*.

To arrive at the origin of the word "barnacle," or "bernicle," as applied to the goose, we must understand that this bird, *Anser leucopsis*, was formerly called the "brent," "brant," or "bran" goose, and was supposed to be identical with the species, *Anser torquatus*, which is now known by that name. The Scottish word for "goose" is "clake," or "clakis,"* and I think that the suggestion made long ago to Gesner† (1558), by his correspondent Joannes Caius, is correct, that the word "barnacle" comes from "branclakis," or "barnclake," "the dark-coloured goose."

Professor Max Müller is of the opinion that its Latin name may have been derived from *Hibernicæ*, *Hiberniculæ* *Berniculæ*, as it was against the Irish bishops that Giraldus wrote, but I must say that this does not commend itself to me; for the name *Bernicula* was not used in the early times to denote these birds. Giraldus himself described them as *Bernacæ*, but they were variously known, also, as *Barliates*, *Bernestas*, *Barnetas*, *Barbates*, &c.

I believe that Dr. John Hill,‡ following Deusingius, gave the true explanation of the origin of the story, as follows. The Branclake, or Brent Goose, abounds at certain times of the year in the Western Islands of Scotland, and some other parts of the British dominions, but rarely breeds

* See the quotation from Hector Boetius, p. 289.

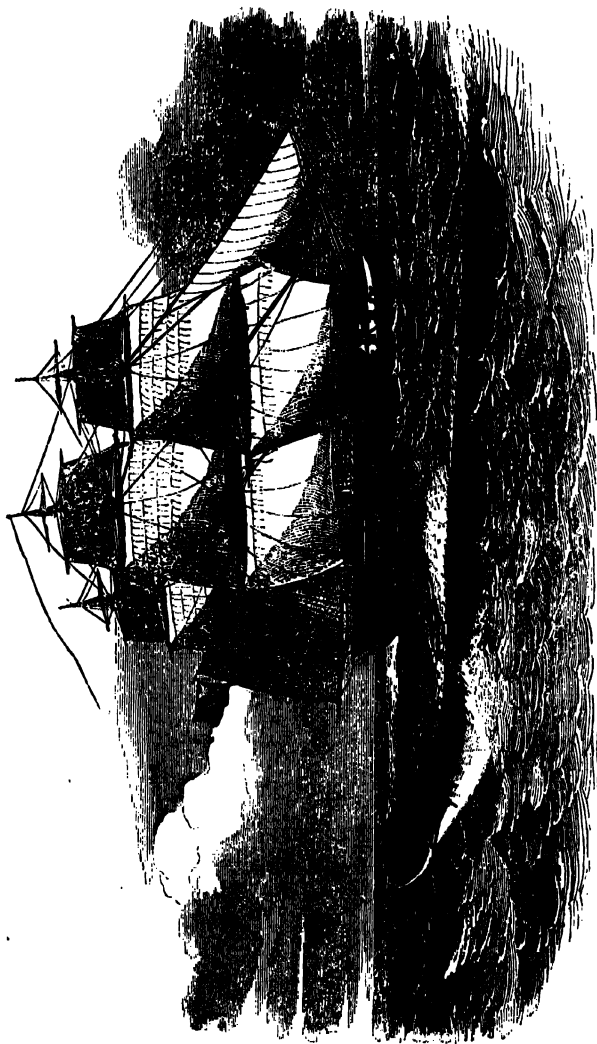
† *Historia Animalium*, lib. iii. p. 110.

‡ 'Review of the Works of the Royal Society of London,' 1751, p. 105; and 'Natural History of Animals,' 1752, p. 422.

there. The ignorant people of those localities, never finding any of the eggs or nests of these birds in places where they were so commonly seen, supposed that they never laid eggs, nor made a nest, and that they were not bred like other birds, but in a different and mysterious manner. Upon the shores most frequented by these geese were, also, found in abundance certain "shell-fish," having fibres, or filaments, hanging out of them which, in some degree, resembled the feathers of a bird. From this slight origin arose the belief that they contained real birds. The fishermen persuaded themselves that these birds within the shells were the geese whose origin they had been previously unable to discover, and that they were thus bred, instead of being hatched, like other birds, from eggs. The "shell-fish" were found growing on pieces of timber or old trees floating in the water or cast upon the land. As the tale spread to a distance, it gained by repetition. The trees found upon the shore were soon reported to be trees growing on the shore; that which grew on trees people soon asserted to be the fruit of trees; and thus, from step to step, the story increased in wonder and obtained credit, till, at length, Gerard had the audacity to assert that he had witnessed the transformation of the "shell-fish" into geese.

The Barnacle Goose is only a winter visitor of Great Britain. It breeds in the far north, in Greenland, Iceland, Spitzbergen, and Nova Zembla, and probably, also, along the shores of the White Sea. There are generally some specimens of this prettily-marked goose in the gardens of the Zoological Society in the Regent's Park, London; and they thrive there, and become very tame. In the months of December and January these geese may often be seen hanging for sale in poulterer's shops; and he who has

tasted one well cooked may be pardoned if the suspicion cross his mind, that the "monks of old," and "the bare-footed friars," as well as the laity, may not have been unwilling to sustain the fiction in order that they might conserve the privilege of having on their tables during the long fast of Lent so agreeable and succulent a "vegetable" or "fish" as a Barnacle Goose.



THE SEA SERPENT, AS FIRST SEEN FROM H.M.S. *Daedalus*.

SEA MONSTERS UNMASKED.

BY

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OCTOPUS, OR THE DEVIL-FISH OF FICTION AND FACT.

ILLUSTRATED.

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PREFACE.

AS I commence this little history of two sea monsters there comes to my mind a remark made to me by my friend, Mr. Samuel L. Clemens—"Mark Twain"—which illustrates a feeling that many a writer must have experienced when dealing with a subject that has been previously well handled. Expressing to me one day the gratification he felt in having made many pleasant acquaintances in England, he added, with dry humour, and a grave countenance, "Yes! I owe your countrymen no grudge or ill-will. I freely forgive them, though one of them did me a grievous wrong, an irreparable injury! It was Shakspeare: if he had not written those plays of his, I should have done so! They contain *my* thoughts, *my* sentiments! He forestalled me!"

In treating of the so-called "sea serpent," I have been anticipated by many able writers. Mr. Gosse, in his delightful book, 'The Romance of Natural History,' published in 1862, devoted a chapter to it; and numerous articles concerning it have appeared in various papers and periodicals.

But, for the information from which those authors have drawn their inferences, and on which they have founded their opinions, they have been greatly indebted, as must be all who have seriously to consider this subject, to the

late experienced editor of the *Zoologist*, Mr. Edward Newman, a man of wonderful power of mind, of great judgment, a profound thinker, and an able writer. At a time when, as he said, "the shafts of ridicule were launched against believers and unbelievers in the sea serpent in a very pleasing and impartial manner," he, in the true spirit of philosophical inquiry, in 1847, opened the columns of his magazine to correspondence on this topic, and all the more recent reports of marine monsters having been seen are therein recorded. To him, therefore, the fullest acknowledgments are due.

The great cuttles, also, have been the subject of articles in various magazines, notably one by Mr. W. Saville Kent, F.L.S., in the 'Popular Science Review' of April, 1874, and a chapter in my little book on the Octopus, published in 1873, is also devoted to them. In writing of them as the living representatives of the kraken, and as having been frequently mistaken for the "sea serpent," my deductions have been drawn from personal knowledge, and an intimate acquaintance with the habits, form, and structure of the animals described. It was only by watching the movements of specimens of the "common squid" (*Loligo vulgaris*), and the "little squid" (*L. media*), which lived in the tanks of the Brighton Aquarium, that I recognised in their peculiar habit of occasionally swimming half-submerged, with uplifted caudal extremity, and trailing arms, the fact that I had before me the "sea serpent" of many a well-authenticated anecdote. A mere knowledge of their form and anatomy after death had never suggested to me that which became at once apparent when I saw them in life.

It is a pleasure to me to acknowledge gratefully the kindness I have met with in connection with the illustra-

tions of this book. The proprietors of the *Illustrated London News* not only gave me permission to copy, in reduced size, their two pictures of the *Dædalus* incident, but presented to me electrotpe copies of all others small enough for these pages—namely, “Jonah and the Monster,” Egede’s “Sea Serpent,” and the Whale as seen from the *Pauline*. Equally kind have been the proprietors of the *Field*. To them I am greatly indebted for their permission to copy the beautiful woodcuts of the “Octopus at Rest,” “The Sepia seizing its Prey,” and the arms of the Newfoundland squids, and also for “electros” of the two curious Japanese engravings, all of which originally appeared in their paper. From the *Graphic* I have had similar permission to copy any cuts that might be thought suitable, and the illustrations of the sea serpent, as seen from Her Majesty’s yacht *Osborne* and the *City of Baltimore*, are from that journal. Messrs. Nisbet most courteously allowed me to have a copy of the block of the *Enaliosaurus* swimming, which was one of the numerous pictures in Mr. Gosse’s book, published by them, already referred to. And last, not least, I have to thank Miss Ellen Woodward, daughter of my friend, Dr. Henry Woodward, F.R.S., for enabling me to better explain the movements and appearances of the squids when swimming, and when raising their bodies out of water in an erect position, by carefully drawing them from my rough sketches.

HENRY LEE.

SAVAGE CLUB;

July 21st, 1883.

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SEA MONSTERS UNMASKED.



THE KRAKEN.

IN the legends and traditions of northern nations, stories of the existence of a marine animal of such enormous size that it more resembled an island than an organised being frequently found a place. It is thus described in an ancient manuscript (about A.D. 1180), attributed to the Norwegian King Sverre, and the belief in it has been alluded to by other Scandinavian writers from an early period to the present day. It was an obscure and mysterious sea-monster, known as the Kraken, whose form and nature were imperfectly understood, and it was peculiarly the object of popular wonder and superstitious dread.

Eric Pontoppidan, the younger, Bishop of Bergen, and member of the Royal Academy of Sciences at Copenhagen, is generally, but unjustly, regarded as the inventor of the semi-fabulous Kraken, and is constantly misquoted by authors who have never read his work,* and who, one after another, have copied from their predecessors erroneous statements concerning him. More than half a century before him, Christian Francis Paullinus,† a physician and naturalist of

* 'Natural History of Norway.' A.D. 1751.

† Born 1643; died 1712.

Eisenach, who evinced in his writings an admiration of the marvellous rather than of the useful, had described as resembling Gesner's 'Heracleoticon,' a monstrous animal which occasionally rose from the sea on the coasts of Lapland and Finmark, and which was of such enormous dimensions, that a regiment of soldiers could conveniently manœuvre on its back. About the same date, but a little earlier, Bartholinus, a learned Dane, told how, on a certain occasion, the Bishop of Midaros found the Kraken quietly reposing on the shore, and mistaking the enormous creature for a huge rock, erected an altar upon it and performed mass. The Kraken respectfully waited till the ceremony was concluded, and the reverend prelate safe on shore, and then sank beneath the waves.

And a hundred and fifty years before Bartholinus and Paullinus wrote, Olaus Magnus,* Archbishop of Upsala, in Sweden, had related many wondrous narratives of sea-monsters,—tales which had gathered and accumulated marvels as they had been passed on from generation to generation in oral history, and which he took care to bequeath to his successors undeprived of any of their fascination. According to him, the Kraken was not so polite to the laity as to the Bishop, for when some fishermen lighted a fire on its back, it sank beneath their feet, and overwhelmed them in the waters.

Pontopidan was not a fabricator of falsehoods; but, in

* Olaus Magnus has sometimes been mistaken for his brother and predecessor in the archiepiscopal see, Johan Magnus, author of a book entitled *Gothorum, Suevorumque Historia*. Olaus was the last Roman Catholic archbishop of the Swedish church, and when the Reformation, supported by Gustavus Vasa, gained the ascendancy in Sweden, he remained true to his faith, and retired to Rome, where he wrote his work *Historia de Gentibus Septentrionalibus, Romæ, 1555*. An English translation of this book was published by J. Streater, in 1658. It does not contain the illustrations.

collecting evidence relating to the "great beasts" living in "the great and wide sea," was influenced, as he tells us, by "a desire to extend the popular knowledge of the glorious works of a beneficent Creator." He gave too much credence to contemporary narratives and old traditions of floating islands and sea monsters, and to the superstitious beliefs and exaggerated statements of ignorant fishermen; but if those who ridicule him had lived in his day and amongst his people, they would probably have done the same; for even Linnæus was led to believe in the Kraken, and catalogued it in the first edition of his '*Systema Naturæ*,' as '*Sepia Microcosmos*.' He seems to have afterwards had cause to discredit his information respecting it, for he omitted it in the next edition. The Norwegian bishop was a conscientious and painstaking investigator and the tone of his writings is neither that of an intentional deceiver nor of an incautious dupe. He diligently endeavoured to separate the truth from the cloud of error and fiction by which it was obscured; and in this he was to a great extent successful, for he correctly identifies, from the vague and perplexing descriptions submitted to him, the animal whose habits and structure had given rise to so many terror-laden narratives and extravagant traditions.

The following are some of his remarks on the subject of this gigantic and ill-defined animal. Although I have greatly abbreviated them, I have thought it right to quote them at considerable length, that the modest and candid spirit in which they were written may be understood:*

"Amongst the many things," he says, "which are in the ocean, and concealed from our eyes, or only presented to our view for a few minutes, is the Kraken. This creature is the largest and most surprising of all the animal creation, and consequently well deserves such

* '*Natural History of Norway*,' vol. ii., p. 210.

an account as the nature of the thing, according to the Creator's wise ordinances, will admit of. Such I shall give at present, and perhaps much greater light on this subject may be reserved for posterity.

"Our fishermen unanimously affirm, and without the least variation in their accounts, that when they row out several miles to sea, particularly in the hot summer days, and by their situation (which they know by taking a view of different points of land) expect to find eighty or a hundred fathoms of water, it often happens that they do not find above twenty or thirty, and sometimes less. At these places they generally find the greatest plenty of fish, especially cod and ling. Their lines, they say, are no sooner out than they may draw them up with the hooks all full of fish. By this they know that the Kraken is at the bottom. They say this creature causes those unnatural shallows mentioned above, and prevents their sounding. These the fishermen are always glad to find, looking upon them as a means of their taking abundance of fish. There are sometimes twenty boats or more got together and throwing out their lines at a moderate distance from each other ; and the only thing they then have to observe is whether the depth continues the same, which they know by their lines, or whether it grows shallower, by their seeming to have less water. If this last be the case they know that the Kraken is raising himself nearer the surface, and then it is not time for them to stay any longer ; they immediately leave off fishing, take to their oars, and get away as fast as they can. When they have reached the usual depth of the place, and find themselves out of danger, they lie upon their oars, and in a few minutes after they see this enormous monster come up to the surface of the water ; he there shows himself sufficiently, though his whole body does not appear, which, in all likelihood, no human eye ever beheld. Its back or upper part, which seems to be in appearance about an English mile and a half in circumference (some say more, but I chuse the least for greater certainty), looks at first like a number of small islands surrounded with something that floats and fluctuates like sea-weeds. Here and there a larger rising is observed like sand-banks, on which various kinds of small fishes are seen continually leaping about till they roll off into the water from the sides of it ; at last several bright points or horns appear, which grow thicker and thicker the higher they rise above the surface of the water, and sometimes they stand up as high and as large as the masts of middle-sized vessels. It seems these are the creature's arms, and it is said if they were to lay hold of the largest man of war they would pull it down to the bottom. After this monster has been on the surface of the water

a short time it begins slowly to sink again, and then the danger is as great as before ; because the motion of his sinking causes such a swell in the sea, and such an eddy or whirlpool, that it draws everything down with it, like the current of the river Male.

“As this enormous sea-animal in all probability may be reckoned of the Polype, or of the Starfish kind, as shall hereafter be more fully proved, it seems that the parts which are seen rising at its pleasure, and are called arms, are properly the tentacula, or feeling instruments, called horns, as well as arms. With these they move themselves, and likewise gather in their food.

“Besides these, for this last purpose the great Creator has also given this creature a strong and peculiar scent, which it can emit at certain times, and by means of which it beguiles and draws other fish to come in heaps about it. This animal has another strange property, known by the experience of many old fishermen. They observe that for some months the Kraken or Krabben is continually eating, and in other months he always voids his excrements. During this evacuation the surface of the water is coloured with the excrement, and appears quite thick and turbid. This muddiness is said to be so very agreeable to the smell or taste of other fishes, or to both, that they gather together from all parts to it, and keep for that purpose directly over the Kraken ; he then opens his arms or horns, seizes and swallows his welcome guests, and converts them after due time, by digestion, into a bait for other fish of the same kind. I relate what is affirmed by many ; but I cannot give so certain assurances of this particular, as I can of the existence of this surprising creature ; though I do not find anything in it absolutely contrary to Nature. As we can hardly expect to examine this enormous sea-animal alive, I am the more concerned that nobody embraced that opportunity which, according to the following account once did, and perhaps never more may, offer, of seeing it entire when dead.”

The lost opportunity which the worthy prelate thus lamented, with the true feeling of a naturalist, was made known to him by the Rev. Mr. Friis, Consistorial Assessor, Minister of Bodoen in Nordland, and Vicar of the college for promoting Christian knowledge, and was to the following effect :

“In the year 1680, a Krake (perhaps a young and foolish one) came into the water that runs between the rocks and cliffs in the parish of

Alstahoug, though the general custom of that creature is to keep always several leagues from land, and therefore of course they must die there. It happened that its extended long arms, or antennæ, which this creature seems to use like the snail, in turning about, caught hold of some trees standing near the water, which might easily have been torn up by the roots ; but beside this, as it was found afterwards, he entangled himself in some openings or clefts in the rock, and therein stuck so fast, and hung so unfortunately, that he could not work himself out, but perished and putrefied on the spot. The carcass, which was a long while decaying, and filled great part of that narrow channel made it almost impassable by its intolerable stench.

“The Kraken has never been known to do any great harm, except,” the Author quaintly says, “they have taken away the lives of those who consequently could not bring the tidings. I have heard but one instance mentioned, which happened a few years ago, near Fridrichstad, in the diocess of Aggerhuus. They say that two fishermen accidentally, and to their great surprise, fell into such a spot on the water as has been before described, full of a thick slime almost like a morass. They immediately strove to get out of this place, but they had not time to turn quick enough to save themselves from one of the Kraken’s horns, which crushed the head of the boat, so that it was with great difficulty they saved their lives on the wreck, though the weather was as calm as possible ; for these monsters, like the sea-snake, never appear at other times.”

Pontoppidan then reviews the stories of floating islands which suddenly appear, and as suddenly vanish, commonly credited, and especially mentioned by Luke Debes, in his ‘Description of Faroe.’

“These islands in the boisterous ocean could not be imagined,” he says, “to be of the nature of real floating islands, because they could not possibly stand against the violence of the waves in the ocean, which break the largest vessels, and therefore our sailors have concluded this delusion could come from no other than the great deceiver, the devil.”

This accusation, the good bishop, in his desire to be strictly impartial, will not admit on such hear-say evidence, but is determined to, literally, “give the devil his due ;”

for he warns his readers that "we ought not to charge that apostate spirit without a cause; for," he adds, "I rather think that this devil who so suddenly makes and unmakes these floating islands, is nothing else but the Kraken."

Referring to a monster described by Pliny, he repeats his belief that "This sea-animal belongs to the Polype, or Star-fish species;" but he becomes very undecided and indefinite between the *Cephalopoda* and the *Asteridæ*, between the pedal segments, or arms, of the cuttle radiating from its head, and the rays of a Star-fish radiating from a central portion of the body. He evidently inclines strongly towards a particular Star-fish, the rays of which continually divide and subdivide themselves, or, as he describes it, "which shoots its rays into branches like those of trees," and to which he gave the name of "Medusa's Head," a title by which, in its Greek form, *Gorgonocephalus*, it is still known to zoologists. "These Medusa's Heads," he says, "are supposed by some seafaring people here, to be the young of the Sea-Krake; perhaps they are its smallest ovula." After considering other reports concerning the Kraken, he arrives at the following definite opinion:

"We learn from all this that the Polype or Star-fish have amongst their various species some that are much larger than others; and, according to all appearance, amongst the very largest inhabitants of the ocean. If the axiom be true that greatness or littleness makes no change in the species, then this Krake must be of the Polypus kind, notwithstanding its enormous size."

His diagnosis is correct; but it is stated with a modesty which his detractors would do well to imitate; and his concluding words on this subject place him in a light very different from that in which he is popularly regarded.

"I do not in the least insist on this conjecture being true," he writes, "but willingly submit my suppositions in this and every other dubious matter to the judgment of those who are better experienced. If I was an admirer of uncertain reports and fabulous stories, I might here add much more concerning this and other Norwegian sea-monsters, whose existence I will not take upon me to deny, but do not chuse, by a mixture of uncertain relations, to make such account appear doubtful as I myself believe to be true and well attested. I shall, therefore, quit the subject here, and leave it to future writers on this plan to complete what I have imperfectly sketched out, by further experience, which is always the best instructor."

It is easy to recognise in Pontoppidan's description of the Kraken, the form and habits of one of the "Cuttle-fishes," so-called. The appearance of its numerous arms, with which it gathers in its food, and which grow thicker and thicker as they rise above the surface, is just what would take place in the case of one of the pelagic species of these mollusks raising its head out of the sea. The rendering of the water turbid and thick by the emission of a substance which the narrator supposed to be faecal matter, is exactly that which occurs when a cuttle discharges the contents of the remarkable organ known as its ink-bag; and the strong and peculiar scent mentioned as appertaining to it, is actually characteristic of its inky secretion. The musky odour referred to is more perceptible in some species than in others. In one of the Octopods (*Eledone moschatus*), it is so strong, that the specific name of the animal is derived from it.

The ancient Greeks and Romans, who were well acquainted with the various kinds of cuttles, and regarded them all as excellent food, and even as delicacies of the table, applied the word "polypus" especially to the octopus. But Pontoppidan evidently uses it as descriptive of all the cephalopods. It must not be forgotten, however,

that when he wrote, science was only slowly recovering from neglect of many centuries' duration. In the enlightened times of Greece and Rome, natural history flourished, and as in our day, attracted and occupied the attention of the man of science, and afforded recreation to the man of business and the politician. Aristotle wrote 322 years before the birth of Christ, and his works are monuments of practical wisdom. When we consider the period during which he lived, and the isolated nature of his labours, and compare them with the information which he possessed, we are astonished at his sagacity and the great scope and general accuracy of his knowledge. Pliny, 240 years later, lived in times more favourable for the cultivation of science; but, with all his advantages, made little improvement on the work of the great master. And then, later still, the sun of learning set; and there came over Europe the long night of the dark ages which succeeded Roman greatness, during which science was degraded and ignorance prevailed; and it is not till the middle of the sixteenth century that the zoologist finds much to interest and instruct him. When we further reflect, that until within the past five and twenty years—till our large aquaria were constructed—Aristotle's knowledge of the habits and life-history of marine animals, and amongst them the cephalopods, was incomparably greater and more perfect than that possessed by any man who had lived since he recorded his observations, we cannot help feeling that in some departments of knowledge there is still lost ground to be recovered.

In the old days of the Cæsars, a Greek or Roman housewife who was accustomed to see the cuttle, the squid, and the octopus daily exposed for sale in the markets, would, of course, have laughed at the idea of mistaking the one for

the other ; but there are comparatively few persons in our own country, at the present day, except those who have made marine zoology their study, whose ideas on the subject are not exceedingly hazy. This want of technical knowledge is not confined to the masses ; but is common, if not general, amongst those who have been well educated, and is frequently apparent even in leaders in the daily papers—the productions, for the most part, of men of receptive minds, trained discrimination, and great general knowledge. As the subject is one in which I have long felt especial interest, I venture to hope that I may succeed in making clear the difference between the eight-footed octopus and its ten-footed relatives, and thus enable the reader to identify the member of the family from which we are to strip the dress and “make up” in which it masqueraded as the Kraken, and cause it to appear in its true and natural form.

One of the great primary groups or divisions of the animal kingdom is that of the soft-bodied mollusca ; which includes the cuttle, the oyster, the snail, &c. It has been separated into five “classes,” of which the one we have especially to notice is the *Cephalopoda*,* or “head-footed,”—the animals belonging to it having their feet, or the organs which correspond with the foot of other molluscs, so attached to the head as to form a circle or coronet round the mouth. Some of these have the foot divided into eight segments, and are therefore called the *Octopoda*.† others have, in addition to the eight feet, lobes, or arms, two longer tentacular appendages, making ten in all, and are consequently called the *Decapoda*.

* From the Greek words *cephale*, the head ; and *poda*, feet.

† From *octo*, eight ; and *pous* (*poda*), feet.

Of the ten-footed section of the cephalopods, there are four "families;" two only of which exist in Britain—the *Teuthidæ*, and the *Sepiidaæ*. The *Teuthidæ* are the Calamaries, popularly known as "Squids," and are represented by the long-bodied *Loligo vulgaris*, that has internally, along its back, a gristly, translucent stiffener, shaped like a quill-pen; from which and its ink it derives its names of "calamary" (from "*calamus*," a "pen"), "pen-and-ink fish," and "sea-clerk." The *Sepiidaæ* are generally known as the Cuttles proper. As a type of them we may take the common "cuttle-fish," *Sepia officinalis*, the owner of the hard, calcareous shell often thrown up on the shore, and known as "cuttle-bone," or "sea-biscuit."

It must be here remarked, that as these head-footed mollusks are not "fish," any more than lobsters, crabs, oysters, mussels, &c., which fishmongers call "shell-fish," are "fish," the word "fish" is misleading, and should be abandoned; and secondly, that the names "cuttle" and "squid," as distinctive appellations, are unsatisfactory. The word "cuttle" is derived from "cuddle," to hug, or embrace—in allusion to the manner in which the animal seizes its prey, and enfolds it in its arms; and "squid" is derived from "squirt," in reference to its habit of squirting water or ink. But as all the known members of the class, except the pearly nautilus, *Nautilus pompilius*, have these habits in common, the distinguishing terms are hardly apposite. As, however, they are conventionally accepted and understood, I prefer to use them. As with other mollusks, so with the cephalopods, some have shells, and some are naked, or have only rudimentary shells. The Argonaut, or paper nautilus, has been regarded as the analogue of the snail, which, like it, secretes an *external* shell for the protection of its soft body; and the octopus as that of the garden slug, which, having

organs like those of the snail, as the octopus has organs like those of the shell-bearing argonaut, has no shell. The cuttles and squids may be compared to some of the sea-slugs, as *Aplysia* and *Bullæa*, and to some land-slugs, as *Parmacella* and *Limax*, which have an *internal* shell.

The argonaut and the other families of the cephalopods do not come within the scope of this treatise ; we will therefore confine our attention to the three above mentioned. Of the anatomy and homology of the *Octopus*, *Sepia*, and *Calamary* we need say no more than will suffice to show in what manner they resemble each other, and wherein they differ, in order that we may the more clearly perceive to which of them the story of the Kraken probably owes its origin.

The octopus, the sepia, and the calamary are all constructed on one fundamental plan. A bag of fleshy muscular skin, called the mantle-sac, contains the organs of the body, heart, stomach, liver, intestines, a pair of gills by which oxygen is absorbed from the water for the purification of the blood, and an excurrent tube by which the water thus deprived of its life-sustaining gas is expelled. The outrush of water with more or less force, from this "syphon-tube," is also the principal source of locomotion when the animal is swimming, as it propels it backward—not by the striking of the expelled fluid against the surrounding water, as is generally supposed ; but by the unbalanced pressure of the fluid acting inside the body in the direction in which the creature goes. Into this syphon-tube, or funnel, opens, by a special duct, the ink-bag ; and from it is squirted at will the intensely black fluid therein secreted. I doubt very much the correctness of the statement mentioned by Pontoppidan and others, that the cuttle ejects its ink with a desire to lie hidden and in ambush for its intended prey, or with the intention to attract fish

within its reach by their partiality for the musky odour of this secretion. It may be so, but during the long period that I had these animals under close observation at the Brighton Aquarium, I never witnessed such an incident. I believe that the emission of the ink is a symptom of fear, and is only employed as a means of concealment from a suspected enemy. I have found, that when first taken, the *Sepia*, of all its kind, is the most sensitively timid. Its keen, unwinking eye watches for and perceives the slightest movement of its captor; and if even most cautiously looked at from above, its ink is belched forth in eddying volumes, rolling over and over like the smoke which follows the discharge of a great gun from a ship's port, and mixes with marvellous rapidity with the surrounding water. But, like all of its class, the *Sepia* is very intelligent. It soon learns to discriminate between friend and foe, and ultimately becomes very tame, and ceases to shoot its ink, unless it be teased and excited. By means of the communication between the ink-bag and the locomotor tube, it happens that when the ink is ejected, a stream of water is forcibly emitted with it, and thus the very effort for escape serves the double purpose of propelling the creature away from danger, and discolouring the water in which it moves. Oppian has well described this—

“The endangered cuttle thus evades his fears,
And native hoards of fluids safely wears.
A pitchy ink peculiar glands supply
Whose shades the sharpest beam of light defy.
Pursued, he bids the sable fountains flow,
And, wrapt in clouds, eludes the impending foe.
The fish retreats unseen, while self-born night
With pious shade befriends her parent's flight.”

Professor Owen has remarked that the ejection of the
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ink of the cephalopods serves by its colour as a means of defence, as corresponding secretions in some of the mammalia by their odour.

It is worthy of notice that the pearly nautilus and the allied fossil forms are without this means of concealment, which their strong external shells render unnecessary for their protection.

From the sac-like body containing the various organs protrudes a head, globose in shape, and containing a brain, and furnished with a pair of strong, horny mandibles, which bite vertically, like the beak of a parrot. By these the flesh of prey is torn and partly masticated, and within them lies the tongue, covered with recurved and retractile teeth, like that of its distant relatives, the whelk, limpet, &c., by which the food is conducted to the gullet. Around this head is, as I have said, the organ which is equivalent to the foot in other mollusks—that by which the slug and the snail crawl—only that the head is placed in the centre, instead of in the front of it, and it is divided into segments, which radiate from this central head. These segments are very flexible, and capable of movement in every direction, and are thus developed into arms, prehensile limbs, by which their owner can seize and hold its living prey. That this may be more perfectly accomplished, these arms are studded along their inner surface with rows of sucking disks, in each of which, by means of a retractile piston, a vacuum can be produced. The consequent pressure of the outer atmosphere or water, causes them to adhere firmly to any substance to which they are applied, whether stone, fish, crustacean, or flesh of man.

But, although in all these highly-organised head-footed mollusks the same general build prevails, it is admirably

modified in each of them to suit certain habits and necessities. Thus the octopus, being a shore dweller, its soft and pliant, but very tough body, having merely a very small and rudimentary indication of an external shell (just a little "style"), is exactly adapted for wedging itself amongst crevices of rocks. A large, rigid, cellular float, or "sepiostaire," such as *Sepia* possesses, or a long, horny pen such as *Loligo* has, would be in the way, and worse than useless in such places as the octopus inhabits. Its eight long powerful arms or feet are precisely fitted for clamber-

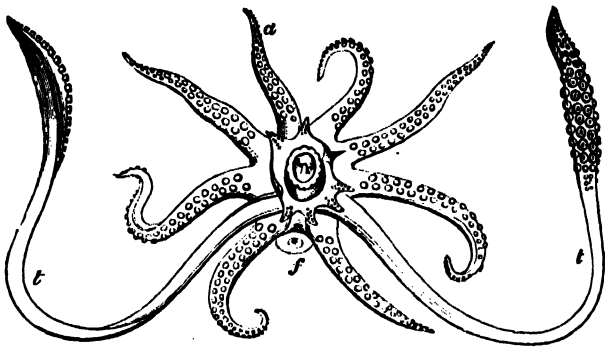


FIG. I.—BEAK AND ARMS OF A DECAPOD CUTTLE.

a, the eight shorter arms ; *t*, the tentacles ; *f*, the funnel, or locomotor tube.

ing over rocks and stones, and as its food, of course, consists principally of the living things most abundant in such localities, namely, the shore-crabs, its great flexible suckers, devoid of hooks or horny armature, are exactly adapted to firm and air-tight attachment to the smooth shells of the crustacea.

Unlike the octopus, which is capable only of short flights through the water, the "cuttles" and "squids," such as *Sepia* and *Loligo*, are all free swimmers. For them it is necessary for accuracy of natation that their soft, and in the squids long bodies, should be supported by such a

framework as they possess. In *Sepia*, the mantle-sac is flattened horizontally all along its lateral edges so as to form a pair of fins, which nearly surround the trunk. These fins could never be used, as they are, to enable the animal to poise itself delicately in the water by means of their beautiful undulations, which I have often watched with delight, if their attached edges were not kept in a straight line on either side. Then, these ten-footed or ten-armed genera have not, because they need them not, eight long, strong and highly mobile arms like those of the octopus, nor have they large suckers upon them. Whereas a great length of reach is an advantage to the octopus, animals which are purely swimmers, and which hunt and overtake their prey by speed, would be impeded by having to drag after them a bundle of stout, lengthy appendages trailing heavily astern. Their eight pedal arms are short and comparatively weak, though strong enough, in individuals such as are regarded on our own coasts as fullgrown, to seize and hold a fish or crustacean as strong as a good sized shore-crab. But, as compensation for the shortness of the eight arms, they are provided with two others more than three times the length of the short ones. These are so slender that they generally lie coiled up in a spiral cone in two pockets, one on each side, just below the eye, when the animal is quiescent, and are only seen when it takes its food. These long, slender tentacular arms are expanded at their extremity, and the inner surface of their enlarged part is studded with suckers—some of them larger in size than those on the eight shorter arms. As the food of these swimmers consists, of course, chiefly of fish, their sucking disks are curiously modified for the better retention of a slippery captive. A horny ring with a sharply serrated edge is imbedded in the outer circumference of each of them, and

when a vacuum is formed, the keen, saw-like teeth are pressed into the skin or scales of the unfortunate prisoner, and deprive it of the slightest chance of escape.

The manner in which the eight-armed and ten-armed cephalopods capture their prey is similar in principle and plan, but differs in action in accordance with their mode of life. The ordinary habit of the octopus is either to rest suspended to the side of a rock to which it clings with the suckers of several of its arms, or to remain lurking in some favourite cranny ; its body thrust for protection and concealment well back in the interior of the recess ; its bright eyes keenly on the watch ; three or four of its limbs firmly attached to the walls of its hiding place—the others gently waving, gliding, and feeling about in the water, as if to maintain its vigilance, and keep itself always on the alert, and in readiness to pounce on any unfortunate wayfarer that may pass near its den. To a shore-crab that comes within its reach the slightest contact with one of those lithe arms is fatal. Instantaneously as pull of trigger brings down a bird, or touch of electric wire explodes a torpedo or a mining fuse, the pistons of the series of suckers are simultaneously drawn inward, the air is removed from the pneumatic holders, and a vacuum created in each : the crab tries to escape, but in a second is completely pinioned : not a movement, not a struggle is possible ; each leg, each claw is grasped all over by suckers, enfolded in them, stretched out to its fullest extent by them ; the back of the carapace is completely covered by the tenacious disks, brought together by the adaptable contractions of the limb, and ranged in close order, shoulder to shoulder, touching each other ; and the pressure of the air is so great that nothing can effect the relaxation of their retentive power but the destruction of the air-pump that works them or the

F.G. 2.—THE OCTOPUS (*Octopus vulgaris*).

closing of the throttle-valve by which they are connected with it. Meanwhile the abdominal plates of the captive crab are dragged towards the mouth ; the black tip of the hard horny beak is seen for a single instant protruding from the circular orifice, in the centre of the radiation of the arms ; and, the next, has crushed through the shell, and is buried deep in the flesh of the victim.

Unlike the skulking, hiding octopus, its ten-armed relative, the *Sepia*, loves the daylight and the freedom of the upper water. Its predatory acts are not those of a concealed and ambushed brigand lying in wait behind a rock, or peeping furtively from within the gloomy shadow of a cave ; but it may better be compared with the war-like Comanche vidette seated gracefully on his horse, and scanning from some elevated knoll a wide expanse of prairie, in readiness to swoop upon a weak or unarmed foe. Poised near the surface of the water, like a hawk in the air, the *Sepia* moves gently to and fro by graceful undulations of its lateral fins,—an exquisite play of colour occasionally taking place over its beautifully barred and mottled back. When thus tranquil, its eight pedal arms are usually brought close together, and droop in front of its head, like the trunk of an elephant, shortened ; its two longer tentacular arms being coiled up within their pouches, and unseen. Only when some small fish approaches it does it arouse itself. Then, its eyes dilate, and its colours become more bright and vivid. It carefully takes aim, advancing or retreating to such a distance as will just allow the two hidden tentacles to reach the quarry when they shall be shot out. Next, the two highest or central feet are lifted up, and the three others on each side are spread aside, so that they may be all out of the way of the two concealed ten-

tacles, presently to be launched forth; and then, in a moment—so instantaneously that the eye of an observer, be he ever so watchful, can hardly see the act—this pair of tentacles, side by side, are projected and withdrawn, as if in a flash. The fish, or shrimp, has vanished, the suckers of the dilated ends of the tentacles having adhered to it, and left it, as they re-entered their pouches, within the fatal “cuddle,” or embrace, where it is torn to pieces by the devouring beak.* This action of the tentacles of the decapods is the most rapid motion that I know of in the whole animal kingdom—not excepting even that of the tongue of the toad and the lizard. These long tentacles are not used when the food is within reach of the shorter arms.

The calamaries, or squids, of our British seas seize their prey in the same manner as *Sepia*, and the description of one will suffice for both. But there exist two groups of them, which are armed with curved and sharp-pointed hooks or claws, either in addition to, or instead of suckers. In the one group (*Onychoteuthis*), the hooks are restricted to the extremities of the pair of tentacles, in the other (*Enoploteuthis*), both the tentacles and the shorter arms have hooks. Professor Owen, in his description of these hook-armed calamaries in the *Cyclopædia of Anatomy*, notices also another structure which adds greatly to their prehensile

* See an excellent article in the *Field*, Sept. 2, 1876, on the ‘Ten Footed Cuttle’ (*Sepia officinalis*), by the late Mr. W. A. Lloyd, an earnest and accomplished aquatic zoologist; eccentric, but in all that relates to the construction and management of an aquarium a master of his craft. It was his wish that in any future edition of my little book on the Octopus, or other writings on the cephalopods, I should use the woodcuts which illustrated his articles on *Sepia* and Octopus. By the kind permission of the proprietors of the *Field*, I reproduce them in suitable size for these pages.

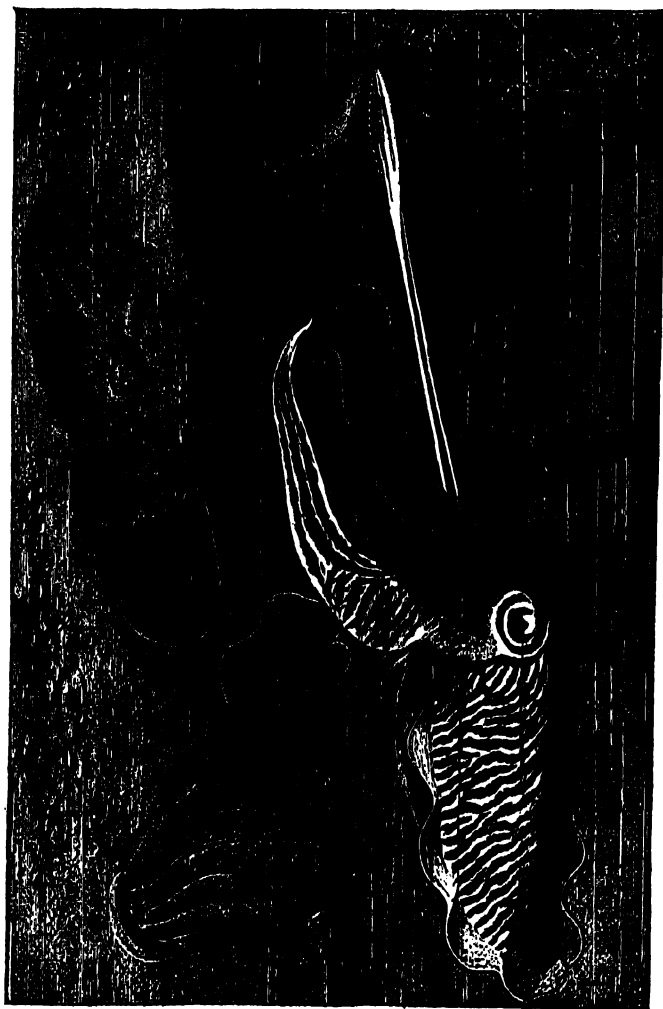


FIG. 3.—THE CUTTLE (*Sepia officinalis*)

power (Fig. 4). "At the extremity of the long tentacles a

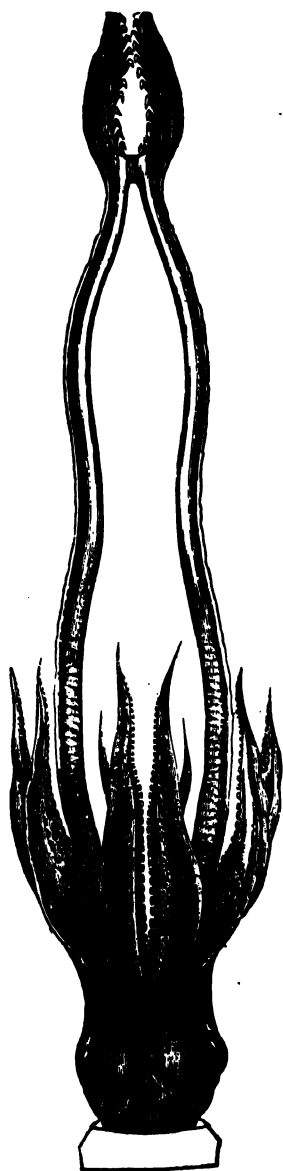


FIG. 4.—HOOKED TENTACLES OF *Onychoteuthis*.

cluster of small, simple, unarmed suckers may be observed at the base of the expanded part. When these latter suckers are applied to one another the tentacles are securely locked together at that part, and the united strength of both the elongated peduncles can be applied to drag towards the mouth any resisting object which has been grappled by the terminal hooks. There is no mechanical contrivance which surpasses this structure ; art has remotely imitated it in the fabrication of the obstetrical forceps, in which either blade can be used separately, or, by the interlocking of a temporary blade, be made to act in combination."

The cephalopods obtain and eat their food very much like the rapacious birds. They are the falcons of the sea. Some of them, like *Onychoteuthis*, strike their prey with talons and suckers also, others lay hold of it with suckers alone ; but they all tear the flesh with their beaks, and swallow and digest their food in the same manner as the hawk or vulture.

The *Sepia*, the owner of the broad, flattened bone, has a decided predilection for the

vicinity of the shore, and for comparatively shallow water. It there attaches its grape-like eggs to some convenient stone or growing alga, and delights occasionally to sink to the bottom, and there to rest half covered by the sand, a habit for which the form of its body is well adapted. But the calamaries—they of the horny pen—prefer the wide waters of the open ocean; and although they, too, especially the smaller species, are common upon the coasts, they are frequently met with far out at sea, and away from any land. The elongated and almost arrow-like shape of their bodies enables them to glide through the water with great rapidity, and the momentum imparted by a vigorous out-rush from their syphon-tube is sometimes so great that when the opposite pressure thus produced is so exerted as to cause them to take an upward direction they leap out of the water to so great a height as to fall on the decks of ships; and are, therefore, called by sailors, “flying squids.” Their spawn is very different from that of either octopus, or sepia. It consists of dozens of semi-transparent, gelatinous, slender, cylindrical sheaths, about four or five inches long, each containing many ova imbedded in it (making a total number of about 40,000 embryos), all springing from a common centre and resembling a mop without a handle. I have never seen any of these “sea-mops” attached to anything, and the pelagic habits of the calamaries render it probable that they are left floating on the surface of the sea.

Having made ourselves acquainted with the structure and habits of these three divisions of the eight-footed and ten-footed mollusks, let us take evidence as to the size to which they are respectively known to attain, and the degree in which they may be regarded as dangerous to man.

An octopus from our own coasts having arms two feet in

length may be considered a rather large specimen ; and Dr. J. E. Gray, who was always most kindly ready to place at the disposal of any sincere inquirer the vast store of knowledge laid up in his wonderful memory, told me that "there is not one in the British Museum which exceeds this size, or which would not go into a quart pot—body, arms and all." The largest British specimen I have hitherto seen had arms 2 ft. 6 in. long. We have sufficient evidence, however, that it exceeds this in the South of France, and along the Spanish and Italian coasts of the Mediterranean ; and my deceased friend John Keast Lord tells us in his book, 'The Naturalist in British Columbia,' that he saw and measured, in Vancouver's Island, an octopus which had arms five feet long.

I have often been asked whether an octopus of the ordinary size can really be dangerous to bathers. Decidedly, "Yes," in certain situations. The holding power of its numerous suckers is enormous. It is almost impossible forcibly to detach it from its adhesion to a rock or the flat bottom of a tank ; and if a large one happened to fix one or more of its strong, tough arms on the leg of a swimmer whilst the others held firmly to a rock, I doubt if the man could disengage himself under water by mere strength, before being exhausted. Fortunately the octopus can be made to relax its hold by grasping it tightly round the "throat," (if I may so call it), and it may be well that this should be known.

That men are occasionally drowned by these creatures is, unhappily, a fact too well attested. I have elsewhere * related several instances of this having occurred. Omitting those, I will give two or three others which have

* See 'The Octopus ; or, the Devil-fish of Fiction and of Fact.' 1873. Chapman and Hall.

since come under my notice. Sir Grenville Temple, in his 'Excursions in the Mediterranean Sea,' tells how a Sardinian captain, whilst bathing at Jerbeh, was seized and drowned by an octopus. When his body was found, his limbs were bound together by the arms of the animal; and this took place in water only four feet deep.

Mr. J. K. Lord's account of the formidable strength of these creatures in Oregon is confirmed by an incident recorded in the *Weekly Oregonian* (the principal paper of Oregon) of October 6th, 1877. A few days before that date an Indian woman, whilst bathing, was held beneath the surface by an octopus, and drowned. The body was discovered on the following day in the horrid embrace of the creature. Indians dived down, and with their knives severed the arms of the octopus and recovered the corpse.

Mr. Clemens Laming, in his book, 'The French in Algiers,' writes:—

"The soldiers were in the habit of bathing in the sea every evening, and from time to time several of them disappeared—no one knew how. Bathing was, in consequence, strictly forbidden; in spite of which several men went into the water one evening. Suddenly one of them screamed for help, and when several others rushed to his assistance they found that an octopus had seized him by the leg by four of its arms, whilst it clung to the rock with the rest. The soldiers brought the 'monster' home with them, and out of revenge they boiled it alive and ate it. This adventure accounted for the disappearance of the other soldiers."

The Rev. W. Wyatt Gill, who for more than a quarter of a century has resided as a missionary amongst the inhabitants of the Hervey Islands, and with whom I had the pleasure of conversing on this subject when he was in England in 1875, described in the *Leisure Hour* of April 20th, 1872, another mode of attack by which an octopus might deprive a man of life. A servant of his went diving for

"poules" (octopods), leaving his son in charge of the canoe. After a short time he rose to the surface, his arms free, but his nostrils and mouth completely covered by a large octopus. If his son had not promptly torn the living plaister from off his face he must have been suffocated—a fate which actually befel, some years previously, a man who foolishly went diving alone.

In *Appleton's American Journal of Science and Art*, January 31st, 1874, a correspondent describes an attack by an octopus on a diver who was at work on the wreck of a sunken steamer off the coast of Florida. The man, a powerful Irishman, was helpless in its grasp, and would have been drowned if he had not been quickly brought to the surface; for, when dragged on to the raft from which he had descended, he fainted, and his companions were unable to pull the creature from its hold upon him until they had dealt it a sharp blow across its baggy body.

A similar incident occurred to the Government diver of the Colony of Victoria, Australia. Whilst pursuing his avocation in the estuary of the river Moyne he was seized by an octopus. He killed it by striking it with an iron bar, and brought to shore with him a portion of it with the arms more than three feet long.

Mr. Laurence Oliphant, in his 'China and Japan,' describes a Japanese show, which consisted of "a series of groups of figures carved in wood, the size of life, and as cleverly coloured as Madame Tussaud's wax-works. One of these was a group of women bathing in the sea. One of them had been caught in the folds of a cuttle-fish; the others, in alarm, were escaping, leaving their companion to her fate. The cuttle-fish was represented on a huge scale, its eyes, eyelids, and mouth being made to move simultaneously by a man inside the head."

An attack of this kind is most artistically represented in a small Japanese ivory-carving in the possession of Mr. Bartlett, of the Zoological Gardens.* A Japanese woman has been seized by an octopus whilst bathing—for as my friend Mr. Frank Buckland remarked when he examined this work of art, the lady wears a bathing-dress. One arm of the octopus is in the act of coiling round the woman's neck, and she is endeavouring to pull it off with her right hand; another arm is entwined around her left wrist; and the rest of the eight writhing thongs encircle her body and waist. With her left hand she is trying to force away from her the mouth of her formidable assailant, which is evidently overpowering her. The arms of the octopus and their sucking disks are admirably carved, but, as in almost all Japanese portraits of the octopus, the animal is incorrectly depicted as having a long snout—the funnel, or syphon tube, being misrepresented as the mouth.



FIG. 5.—JAPANESE WOMAN SEIZED BY AN OCTOPUS WHILST BATHING.

The Japanese are well acquainted with the octopus; for it is commonly depicted on their ornaments, and forms no unimportant item in their fisheries.

I have recently had an opportunity of inspecting a most curious Japanese book, in the possession of my friend Mr. W. B. Tegetmeier, which is chiefly devoted to the repre-

* A wood engraving of this carving was figured in illustration of an interesting paper by Professor Owen, C.B., F.R.S., &c., "On some new and rare Cephalopoda," in the Transactions of the Zoological Society, April 20, 1880. With the cordial consent of the distinguished author I reproduce it here.

sentations of the fisheries and fish-curing processes of the country. It is in three volumes, and is entitled, 'Land and Sea Products,' by Ki Kone. It is evidently ancient, for it is slightly worm-eaten, but the plates, each 12 inches by 8 inches, are full of vigour. Two of these illustrate in a very interesting manner the subject before us, and by the kindness of Mr. Tegetmeier I am able to give facsimiles of them, which appeared with an article by him on this book in the *Field* of March 14th, 1874. Fig. 6 represents a fisherman in a boat out at sea : a gigantic octopus has thrown one of its arms over the side of the boat ; the man, who is alone, has started forward from the stern of the boat, and has succeeded, by means of a large knife attached to a long handle, in lopping off the dangerous limb of his enemy. As Mr. Tegetmeier says, " From the extreme matter of fact manner in which all these engravings are made, and the total absence of exaggeration in any other representation, I cannot but regard the relative sizes of the man, the boat, and the octopus, as correctly given, in which case we have evidence of the existence of gigantic cephalopods in Japanese waters." The only doubt I have is whether the fisherman correctly described his assailant as an octopus, and whether it was not a calamary. Fig. 7 is a vivid picture of a fishmonger's shop in a market, under the awning of which may be seen two arms of a gigantic cuttle hung up for sale as food. These are evidently of most unusual size, judging from the action of the lookers on ; the one to the left, with a tall stand or case on his back, like a Parisian cocoa-vendor, is holding out his hand in mute astonishment ; whilst the attention of the smaller personage in the right-hand corner is directed to the suspended arms of the cuttle by the man nearest to him, who is pointing to them with upraised hand. In another plate in this most



FIG. 6.—JAPANESE FISHERMAN ATTACKED BY A CUTTLE.



FIG. 7.—ARMS OF A GREAT CUTTLE EXHIBITED IN A JAPANESE FISHMONGER'S SHOP.

interesting work a Japanese mode of fishing for cuttles is delineated. A man in a boat is tossing crabs, one at a time, into the sea, and when a cuttle rises at the bait he spears it with a trident and tosses it into the boat.

The octopus, therefore, though not abundant on our own coasts, is found in every sea in the temperate zone; and in so far that it secretes an ink with which it can render the water turbid, and has many radiating arms with which it can seize and drown a man, it possesses certain attributes of the Kraken: but we have no authentic knowledge of its ever attaining to greater dimensions than I have stated, nor does it bask on the surface of the sea. It is not amongst the *Octopidæ* therefore that we must look for a solution of the mystery.

The basking condition is fulfilled by the *Sepia*; and its flattened back, supported and rendered hard and firm to the touch by the calcareous *sepiostaire* beneath the skin, is broader in proportion than that of the octopus or the squid. Thus *Sepia* might pass as a microscopic miniature of the great Scandinavian monster. But it lacks the character of size. We have no reason to believe that any true *Sepia* exists, as the family is now understood, that has a body more than eighteen inches long. If it were otherwise it would be more likely to be known of this family than of its relatives, for its lightly constructed and well known "cuttle-bone" would float on the surface for many weeks after the death of its owner, and large specimens of it would be seen and recognised from passing ships.

As we can find no species of the *Octopidæ* or *Sepiidæ* which can furnish a pretext for the stories told of the Kraken, we must try to ascertain how far a similitude to it may be traced in the third family we have discussed, the *Teuthidæ*.

The belief in the existence of gigantic cuttles is an ancient one. Aristotle mentions it, and Pliny tells of an enormous polypus which at Carteia, in Grenada—an old and important Roman colony near Gibraltar—used to come out of the sea at night, and carry off and devour salted tunnies from the curing depots on the shore; and adds that when it was at last killed, the head of it (they used to call the body the head, because in swimming it goes in advance) was found to weigh 700 lbs. Ælian records a similar incident, and describes his monster as crushing in its arms the barrels of salt fish to get at the contents. These two must have been octopods, if they were anything; the word “polypus” thus especially designates it, and moreover, the free-swimming cuttles and squids would be helpless if stranded on the shore. Some of the old writers seem to have aimed rather at making their histories sensational, than at carefully investigating the credibility or the contrary of the highly coloured reports brought to them. These were, of course, gross exaggerations, but there was generally a substratum of truth in them. They were based on the rare occurrence of specimens, smaller certainly, but still enormous, of some known species, and in most cases the worst that can be said of their authors is that they were culpably careless and foolishly credulous.

Unhappily, so lenient a judgment cannot be passed on some comparatively recent writers. Denys de Montfort, half a century later than Pontoppidan, not only professed to believe in the Kraken, but also in the existence of another gigantic animal distinct from it; a colossal *poulpe*, or octopus, compared with which Pliny's was a mere pigmy. In a drawing fitter to decorate the outside of a showman's caravan at a fair than seriously to illustrate a

work on natural history,* he depicted this tremendous cuttle as throwing its arms over a three-masted vessel, snapping off its masts, tearing down the yards, and on the point of dragging it to the bottom, if the crew had not succeeded in cutting off its immense limbs with cutlasses and hatchets. De Montfort had good opportunities of obtaining information, for he was at one time an assistant in the geological department of the Museum of Natural History, in Paris; and wrote a work on conchology,† besides that already referred to. But it appears to have been his deliberate purpose to cajole the public; for it is reported that he exclaimed to M. Defrance: "If my entangled ship is accepted, I will make my 'colossal poulpe' overthrow a whole fleet." Accordingly we find him gravely declaring‡ that one of the great victories of the British navy was converted into a disaster by the monsters which are the subject of his history. He boldly asserted that the six men-of-war captured from the French by Admiral Rodney in the West Indies on the 12th of April, 1782, together with four British ships detached from his fleet to convoy the prizes, were all suddenly engulfed in the waves on the night of the battle under such circumstances as showed that the catastrophe was caused by colossal cuttles, and not by a gale or any ordinary casualty.

Unfortunately for De Montfort, the inexorable logic of facts not only annihilates his startling theory, but demonstrates the reckless falsity of his plausible statements. The captured vessels did not sink on the night of the action, but were all sent to Jamaica to refit, and arrived there

* *Histoire Naturelle générale et particulière des Mollusques*, vol. ii., p. 256.

† *Conchyliologie Systématique*.

‡ *Hist. Nat. des Moll.*, vol. ii., pp. 358 to 368.



FIG. 8.--FACSIMILE OF DE MONTFORT'S "*Poulpe colossal*."

safely. Five months afterwards, however, a convoy of nine line-of-battle ships (amongst which were Rodney's prizes), one frigate, and about a hundred merchantmen, were dispersed, whilst on their voyage to England, by a violent storm, during which some of them unfortunately foundered. The various accidents which preceded the loss of these vessels was related in evidence to the Admiralty by the survivors, and official documents prove that De Montfort's fleet-destroying *poulpe* was an invention of his own, and had no part whatever in the disaster that he attributed to it.*

* De Montfort endeavoured to support his statements by so many inaccurate details, which by a considerable number of ill-informed persons of his own nation have been accepted as true, that I think some particulars of the events above referred to may be interesting. My information is obtained from Rodney's despatches, and paragraphs of contemporary naval news published in the *Gentleman's Magazine* of 1782 and 1783; from the *Annual Register* of 1783; and from Capt. J. N. Inglefield's own account of the loss of his ship the "Centaur," in a rare pamphlet of thirty-nine pages, "published by authority," and dated "Fayall, October 13th, 1782."

In Sir G. B. Rodney's action with the French fleet under the Count de Grasse, off St. Domingo, on the 12th of April, 1782, the manœuvre of breaking the enemy's line, and separating some of his ships from the remainder, was for the first time successfully put in practice. The following captures were made by the British, viz.:—The admiral's ship, *Ville de Paris*, 104, which was a splendid present from the City of Paris to Louis XV.; the *Glorieux*, 74; *César*, 74; *Hector*, 64; *Caton*, 64; *Jason*, 64; *Aimable*, 32; and *Ceres*, 18; besides one ship of 74 guns, sunk during the engagement. The *César*, one of the best ships in the French fleet, took fire on the night of the action, and, before the prisoners could be removed from her, blew up. By this accident a lieutenant, the boatswain, and fifty Englishmen belonging to the "Centaur," together with about four hundred Frenchmen, perished. The remainder of the prizes were sent into Port Royal, Jamaica, to repair damages, and on the 5th of May, 1782, Rodney wrote to the Admiralty announcing their safe arrival in that harbour.

On the 26th of July following, a fleet and convoy, amongst which

I have been told, but cannot vouch for the truth of the report, that De Montfort's propensity to write that which was not true culminated in his committing forgery, and that he died in the galleys. But he records a statement of Captain Jean Magnus Dens, said to have been

were these ships, left Port Royal for England, under the command of Admiral Graves in the "Ramilies." They encountered several very heavy gales of wind, and on the 16th of September, in lat. $42^{\circ} 15'$, long. $48^{\circ} 55'$, a storm set in which lasted several days. About 3 A.M. on the 17th, the wind, which had been blowing from S.E., suddenly shifted, and a brief lull was succeeded by a most violent squall, with furious rain from N.N.W., which is described as "exceeding in degree everything of the kind that the oldest seaman in the fleet had ever seen, or had any conception of." The "Ramilies" went to the bottom soon after 4 P.M. on the 21st. Most of her crew were saved. The "Centaur" foundered on the night of the 23rd, in lat. $48^{\circ} 32'$, long. $43^{\circ} 20'$. Her captain, Inglefield, and eleven of her people, in the pinnace, left her in a sinking state about five o'clock on that evening, and, after suffering severely for sixteen days, in the course of which one man, Thomas Matthews, quartermaster, died from cold and exposure, they landed at Fayall in an exhausted condition, having made a voyage of more than 750 miles in an open boat. The *Glorieux* and the *Ville de Paris* also sank during the gale, and only one man of the crew of the latter vessel was saved, having been picked up on some floating wreck. His name was John Wilson, and he gave evidence at Portsmouth concerning the disaster on the 22nd of March, 1783. The *Caton*, *Canada*, *Ardent*, and *Jason*, escaped with loss of spars and other damage. The "Hector" was attacked by two French frigates, left by them in a crippled condition, and sank—many of the crew being saved by the "Hawkesnow," letter of marque. These are well-attested facts. De Montfort's fabulous statement was, that on the night following the battle, the *Ville de Paris* fired minute guns, and made other signals of extreme distress, and that in consequence of this nine other men-of-war bore down to her assistance, converging on her as a common focus, and were all simultaneously involved in her mournful fate—that of being dragged beneath the yawning waves by enormous *poulpes*. His pretended history, as well as his ingenious, but disingenuous theory, was drawn from his imagination; and the one is as false as the other is absurd.

a respectable and veracious man, who, after having made several voyages to China as a master trader, retired from a seafaring life and lived at Dunkirk. He told De Montfort that in one of his voyages, whilst crossing from St. Helena to Cape Negro, he was becalmed, and took advantage of the enforced idleness of the crew to have the vessel scraped and painted. Whilst three of his men were standing on planks slung over the side, an enormous cuttle rose from the water, and threw one of its arms around two of the sailors, whom it tore away, with the scaffolding on which they stood. With another arm it seized the third man, who held on tightly to the rigging, and shouted for help. His shipmates ran to his assistance, and succeeded in rescuing him by cutting away the creature's arm with axes and knives, but he died delirious on the following night. The captain tried to save the other two sailors by killing the animal, and drove several harpoons into it; but they broke away, and the men were carried down by the monster.

The arm cut off was said to have been twenty-five feet long, and as thick as the mizen-yard, and to have had on it suckers as big as saucepan-lids. I believe the old sea-captain's narrative of the incident to be true; the dimensions given by De Montfort are wilfully and deliberately false. The belief in the power of the cuttle to sink a ship and devour her crew is as widely spread over the surface of the globe, as it is ancient in point of time. I have been told by a friend that he saw in a shop in China a picture of a cuttle embracing a junk, apparently of about 300 tons burthen, and helping itself to the sailors, as one picks gooseberries off a bush.

Traditions of a monstrous cuttle attacking and destroying ships are current also at the present day in the Polynesian Islands. Mr. Gill, the missionary previously quoted, tells

us * that the natives of Aitutaki, in the Hervey group, have a legend of a famous explorer, named Rata, who built a double canoe, decked and rigged it, and then started off in quest of adventures. At the prow was stationed the dauntless Nganaoa, armed with a long spear and ready to slay all monsters. One day when speeding pleasantly over the ocean, the voice of the ever vigilant Nganaoa was heard: "O Rata! yonder is a terrible enemy starting up from ocean depths." It proved to be an octopus (query, squid?) of extraordinary dimensions. Its huge tentacles encircled the vessel in their embrace, threatening its instant destruction. At this critical moment Nganaoa seized his spear, and fearlessly drove it through the head of the creature. The tentacles slowly relaxed, and the dead monster floated off on the surface of the ocean.

Passing from the early records of the appearance of cuttles of unusual size, and the current as well as the traditional belief in their existence by the inhabitants of many countries, let us take the testimony of travellers and naturalists who have a right to be regarded as competent observers. In so doing we must bear in mind that until Professor Owen propounded the very clear and convenient classification now universally adopted, the squids, as well as the eight-footed *Octopidae*, were all grouped under the title of *Sepia*.

Pernetty, describing a voyage made by him in the years 1763-4,† mentions gigantic cuttles met with in the Southern Seas.

Shortly afterwards, during the first week in March, 1769, Banks and Solander, the scientific fellow-voyagers with Lieutenant Cook (afterwards the celebrated Captain Cook),

* *Leisure Hour*, October, 1875, p. 636.

† *Voyage aux Iles Malouines*.

in H.M.S. *Endeavour*, found in the North Pacific, in latitude $38^{\circ} 44'$ S. and longitude $110^{\circ} 33'$ W., a large calamary which had just been killed by the birds, and was floating in a mangled condition on the water. Its arms were furnished, instead of suckers, with a double row of very sharp talons, which resembled those of a cat, and, like them, were retractable into a sheath of skin from which they might be thrust at pleasure. Of this cuttle they say, with evident pleasurable remembrance of a savoury meal, they made one of the best soups they ever tasted. Professor Owen tells us, in the paper already referred to, that when he was curator of the Hunterian Museum of the Royal College of Surgeons, and preparing, in 1829, his first catalogue thereof, he was struck with the number of oceanic invertebrates which Hunter had obtained. He learned from Mr. Clift that Hunter had supplied Mr. (afterwards Sir Joseph) Banks with stoppered bottles containing alcohol, in which to preserve the new marine animals that he might meet with during the circumnavigatory voyage about to be undertaken by Cook. Thinking it probable that Banks might have stowed some parts of this great hook-armed squid in one of these bottles for his anatomical friend, he searched for, and found in a bottle marked "J. B.," portions of its arms, the beak with tongue, a heart ventricle, &c., and, amongst the dry preparations, the terminal part of the body, with an attached pair of rhomboidal fins. The remainder had furnished Cook and his companions Banks and Solander with a welcome change of diet in the commander's cabin of the *Endeavour*. As the inner surface of the arms of the squid, as well as the terminals of its tentacles, were studded with hooks, Professor Owen named it *Euoploteuthis Cookii*. He estimates the diameter of the tail fin at 15 inches, the length of its body 3 feet, of its head 10 inches, of the shorter arms 16 inches,

and of the longer tentacles about the same as its body—thus giving a total length of about 6 ft. 9 in. Although individuals of other species, of larger dimensions, are known to have existed, this is the largest specimen of the hook-armed calamaries that has been scientifically examined. It would have been a formidable antagonist to a man under circumstances favourable to the exertion of its strength, and the use of its prehensile and lacerating talons.

Peron,* the well-known French zoologist, mentions having seen at sea, in 1801, not far from Van Diemen's Land, at a very little distance from his ship, *Le Géographe*, a "Sepia," of the size of a barrel, rolling with noise on the waves; its arms, between 6 and 7 feet long, and 6 or 7 inches in diameter at the base, extended on the surface, and writhing about like great snakes. He recognised in this, and no doubt correctly, one of the calamaries. The arms that he saw were evidently the animal's shorter ones, as under such circumstances, with neither enemy to combat nor prey to seize at the moment, the longer tentacles would remain concealed.

Quoy and Gaimard† report that in the Atlantic Ocean, near the Equator, they found the remains of an enormous calamary, half eaten by the sharks and birds, which could not have weighed less, when entire, than 200 lbs. A portion of this was secured, and is preserved in the Museum of Natural History, Paris.

Captain Sander Rang ‡ records having fallen in with, in mid-ocean, a species distinct from the others, of a dark red colour, having short arms, and a body the size of a hog's head.

* *Voyage de Découvertes aux Terres Australes.*

† *Voyage de l'Uranie : Zoologie*, vol. i., part 2, p. 411. 1824.

‡ *Manuel des Mollusques*, p. 86.

In a manuscript by Paulsen (referred to by Professor Steenstrup, at a meeting of Scandinavian naturalists at Copenhagen in 1847) is a description of a large calamary, cast ashore on the coast of Zeeland, which the latter named *Architeuthis monachus*. Its body measured 21 feet, and its tentacles 18 feet, making a total of 39 feet.

In 1854 another was stranded at the Skag in Jutland, which Professor Steenstrup believed to belong to the same genus as the preceding, but to be of a different species, and called it *Architeuthis dux*. The body was cut in pieces by the fishermen for bait, and furnished many wheelbarrow loads. Mr. Gwyn Jeffreys* says Dr. Mörch informed him that the beak of this animal was nine inches long. He adds that another huge cephalopod was stranded in 1860 or 1861, between Hillswick and Scalloway, on the west of Shetland. From a communication received by Professor Allman, it appears that its tentacles were 16 feet long, the pedal arms about half that length, and the mantle sac 7 feet. The largest suckers examined by Professor Allman were three-quarters of an inch in diameter.

We have also the statement of the officers and crew of the French despatch steamer, *Alecton*, commanded by Lieutenant Bouyer, describing their having met with a great calamary on the 30th of November, 1861, between Madeira and Teneriffe. It was seen about noon on that day floating on the surface of the water, and the vessel was stopped with a view to its capture. Many bullets were aimed at it, but they passed through its soft flesh without doing it much injury, until at length "the waves were observed to be covered with foam and blood." It had probably discharged the contents of its ink-bag; for a strong odour of musk immediately became perceptible—a perfume which I

* 'British Conchology,' vol. v., p. 124.

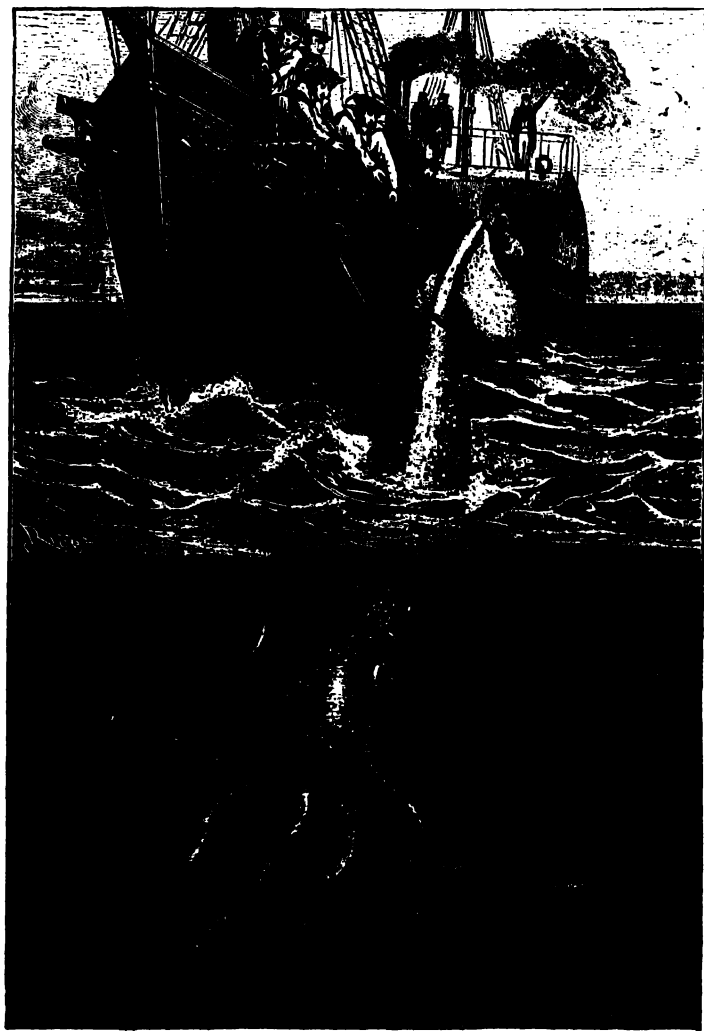


FIG. 9.—GIGANTIC CALAMARY CAUGHT BY THE FRENCH DESPATCH VESSEL *Albatron*, NEAR TENERIFFE.

have already mentioned as appertaining to the ink of many of the cephalopoda, and also as being one of the reputed attributes of the Kraken. Harpoons were thrust into it, but would not hold in the yielding flesh ; and the animal broke adrift from them, and, diving beneath the vessel, came up on the other side. The crew wished to launch a boat that they might attack it at closer quarters, but the commander forbade this, not feeling justified in risking the lives of his men. A rope with a running knot was, however, slipped over it, and held fast at the junction of the broad caudal fin ; but when an attempt was made to hoist it on deck the enormous weight caused the rope to cut through the flesh, and all but the hinder part of the body fell back into the sea and disappeared. M. Berthelot, the French consul at Teneriffe, saw the fin and posterior portion of the animal on board the *Alecton* ten days afterwards, and sent a report of the occurrence to the Paris Academy of Sciences. The body of this great squid, which, like Rang's specimen, was of a deep-red colour, was estimated to have been from 16 feet to 18 feet long, without reckoning the length of its formidable arms.*

These are statements made by men who, by their intelligence, character, and position, are entitled to respect and credence ; and whose evidence would be accepted without question or hesitation in any court of law. There is, moreover, a remarkable coincidence of particulars in their several accounts, which gives great importance to their combined testimony.

But, fortunately, we are not left dependent on documentary evidence alone, nor with the option of accepting or rejecting, as caprice or prejudice may prompt us, the

* In the accompanying illustration, the size of the squid is exaggerated, but not so much as has been supposed.

narratives of those who have told us they have seen what we have not. Portions of cuttles of extraordinary size are preserved in several European museums. In the collection of the Faculty of Sciences at Montpellier is one six feet long, taken by fishermen at Cette, which Professor Steenstrup has identified as *Ommastrephes pteropus*. One of the same species, which was formerly in the possession of M. Eschricht, who received it from Marseilles, may be seen in the museum at Copenhagen. The body of another, analogous to these, is exhibited in the Museum of Trieste : it was taken on the coast of Dalmatia. At the meeting of the British Association at Plymouth in 1841, Colonel Smith exhibited drawings of the beak and other parts of a very large calamary preserved at Haarlem ; and M. P. Harting, in 1860, described in the Memoirs of the Royal Scientific Academy of Amsterdam portions of two extant in other collections in Holland, one of which he believes to be Steenstrup's *Architeuthis dux*, a species which he regards as identical with *Ommastrephes todarus* of D'Orbigny.

Still there remained a residuum of doubt in the minds of naturalists and the public concerning the existence of gigantic cuttles until, towards the close of the year 1873, two specimens were encountered on the coast of Newfoundland, and a portion of one and the whole of the other were brought ashore, and preserved for examination by competent zoologists.

The circumstances under which the first was seen, as sensationally described by the Rev. Moses Harvey, Presbyterian minister of St. John's, Newfoundland, in a letter to Principal Dawson, of McGill College, were, briefly and soberly, as follows :—Two fishermen were out in a small punt on the 26th of October, 1873, near the eastern end of Belle Isle, Conception Bay, about nine miles from St. John's.

Observing some object floating on the water at a short distance, they rowed towards it, supposing it to be the *débris* of a wreck. On reaching it one of them struck it with his "gaff," when immediately it showed signs of life, and shot out its two tentacular arms, as if to seize its antagonists. The other man, named Theophilus Picot, though naturally alarmed, severed both arms with an axe as they lay on the gunwale of the boat, whereupon the animal moved off, and ejected a quantity of inky fluid which darkened the surrounding water for a considerable distance. The men went home, and, as fishermen will, magnified their lost "fish." They "estimated" the body to have been 60 feet in length, and 10 feet across the tail fin; and declared that when the "fish" attacked them "it reared a parrot-like beak which was as big as a six-gallon keg."

All this, in the excitement of the moment, Mr. Harvey appears to have been willing to believe, and related without the expression of a doubt. Fortunately, he was able to obtain from the fishermen a portion of one of the tentacular arms which they had chopped off with the axe, and by so doing rendered good service to science. This fragment (Fig. 10), as measured by Mr. Alexander Murray, provincial geologist of Newfoundland, and Professor Verrill, of Yale College, Connecticut, is 17 feet long and $3\frac{1}{2}$ feet in circumference. It is now in St. John's Museum. By careful calculation of its girth, the breadth and circumference of the expanded sucker-bearing portion at its extremity, and the diameter of the suckers, Professor Verrill has computed its dimensions to have been as follows:—Length of body 10 feet; diameter of body 2 feet 5 inches. Long tentacular arms 32 feet; head 2 feet; total length about 44 feet. The upper mandible of the beak, instead of being "as large as a six-gallon keg" would be about 3 inches long, and the lower

mandible $1\frac{1}{2}$ inch long. From the size of the large suckers relatively to those of another specimen to be presently

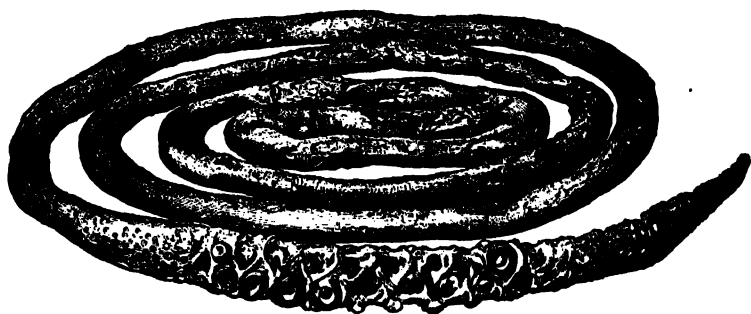


FIG. 10.—TENTACLE OF A GREAT CALAMARY (*Architeuthis princeps*) TAKEN IN CONCEPTION BAY, NEWFOUNDLAND, OCT. 26, 1873.

described, he regards it as probable that this individual was a female.

In November, 1873—about three weeks after the occurrence in Conception Bay—another calamary somewhat smaller than the preceding, but of the same species, also came into Mr. Harvey's possession. Three fishermen, when hauling their herring-net in Logie Bay, about three miles from St. John's, found the huge animal entangled in its folds. With great difficulty they succeeded in despatching it and bringing it ashore, having been compelled to cut off its head before they could get it into their boat.

The body of this specimen was over 7 feet long; the caudal fin 22 inches broad; the two long tentacular arms 24 feet in length; the eight shorter arms each 6 feet long, the largest of the latter being 10 inches in circumference at the base; total length of this calamary 32 feet. Professor Verrill considers that this and the Conception Bay squid are both referable to one species—Steenstrup's *Architeuthis dux*.

Excellent woodcuts from photographs of these two specimens were given in the *Field* of December 13th, 1873, and January 31st, 1874, respectively, and I am indebted to the

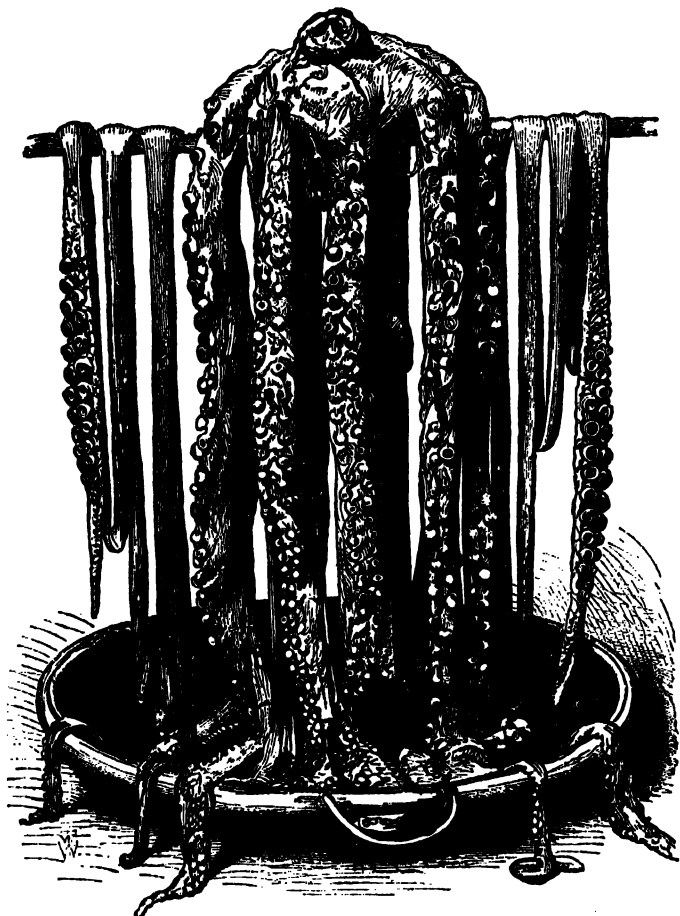


FIG. II.—HEAD AND TENTACLES OF A GREAT CALAMARY (*Architeuthis princeps*) TAKEN IN LOGIE BAY, NEWFOUNDLAND, NOV. 1873.

proprietors of that journal for their kind and courteous permission to copy them in reduced size for the illustration of this little work.

For the preservation of both of the above described

specimens we have to thank Mr. Harvey, and he produces additional evidence of other gigantic cuttles having been previously seen on the coast of Newfoundland. He mentions two especially, which, as stated by the Rev. Mr. Gabriel, were cast ashore in the winter of 1870-71, near Lamaline on the south coast of the island, which measured respectively 40 feet and 47 feet in length ; and he also tells of another stranded two years later, the total length of which was 80 feet.

In the *American Journal of Science and Arts*, of March, 1875, Professor Verrill gives particulars and authenticated testimony of several other examples of great calamaries, varying in total length from 30 feet to 52 feet, which have been taken in the neighbourhood of Newfoundland since the year 1870. One of these was found floating, apparently dead, near the Grand Banks in October, 1871, by Captain Campbell, of the schooner *B. D. Hoskins*, of Gloucester, Mass. It was taken on board, and part of it used for bait. The body is stated to have been 15 feet long, and the pedal or shorter arms between 9 feet and 10 feet. The beak was forwarded to the Smithsonian Institution.

Another instance given by Professor Verrill is of a great squid found alive in shallow water in Coomb's Cove, Fortune Bay, in the year 1872. Its measurements, taken by the Hon. T. R. Bennett, of English Harbour, Newfoundland, were, length of body 10 feet ; length of tentacles 42 feet ; length of one of the ordinary arms 6 feet : the cups on the tentacles were serrated. Professor Verrill also mentions a pair of jaws and two suckers in the Smithsonian Institution, as having been received from the Rev. A. Munn, with a statement that they were taken from a calamary which went ashore in Bonavista Bay, and which measured 32 feet in total length.

On the 22nd of September, 1877, another gigantic squid was stranded at Catalina, on the north shore of Trinity Bay, Newfoundland, during a heavy equinoctial gale. It was alive when first seen, but died soon after the ebbing of the tide, and was left high and dry upon the beach. Two fishermen took possession of it, and the whole settlement gathered to gaze in astonishment at the monster. Formerly it would have been converted into manure, or cut up as food for dogs, but, thanks to the diffusion of intelligence, there were some persons in Catalina who knew the importance of preserving such a rarity, and who advised the fishermen to take it to St. John's. After being exhibited there for two days, it was packed in half-a-ton of ice in readiness for transmission to Professor Verrill, in the hope that it would be placed in the Peabody or Smithsonian Museum; but at the last moment its owners violated their agreement, and sold it to a higher bidder. The final purchase was made for the New York Aquarium, where it arrived on the 7th of October, immersed in methylated spirit in a large glass tank. Its measurements were as follows:—length of body 10 feet; length of tentacles 30 feet; length of shorter arm 11 feet; circumference of body 7 feet; breadth of caudal fin 2 feet 9 inches; diameter of largest tentacular sucker 1 inch; number of suckers on each of the shorter arms 250.

The appearance of so many of these great squids on the shores of Newfoundland during the term of seven years, and after so long a period of popular uncertainty as to their very existence had previously elapsed, might lead one to suppose that the waters of the North Atlantic Ocean which wash the north-eastern coasts of the American Continent were, at any rate, temporarily, their principal habitat, especially as a smaller member of their family, *Omma-*

strepthes sagittatus, is there found in such extraordinary numbers that it furnishes the greater part of the bait used in the Newfoundland cod fisheries. But that they are by no means confined to this locality is proved by recent instances, as well as by those already cited.

Dr. F. Hilgendorf records * observations of a huge squid exhibited for money at Yedo, Japan, in 1873, and of another of similar size, which he saw exposed for sale in the Yedo fish market.

When the French expedition was sent to the Island of St. Paul, in 1874, for the purpose of observing the transit of Venus, which occurred on the 9th of December in that year, it was fortunately accompanied by an able zoologist, M. Ch. Velain. He reports † that on the 2nd of November a tidal wave cast upon the north shore of the island a great calamary which measured in total length nearly 23 feet, namely: length of body 7 feet; length of tentacles 16 feet. There are several points of interest connected with its generic characters, and M. Velain's grounds for regarding it as being of a previously unknown species, but they are too technical for discussion here. This specimen was photographed as it lay upon the beach by M. Cazin, the photographer to the expedition.

The following account of the still more recent capture of a large squid off the west coast of Ireland was given in the *Zoologist* of June, 1875, by Sergeant Thomas O'Connor, of the Royal Irish Constabulary:—

“On the 26th of April, 1875, a very large calamary was met with on the north-west of Boffin Island, Connemara. The crew of a

* *Sitzungsberichte der Gesellschaft naturforschenden Freunde zu Berlin*, pp. 65-67, quoted by Professor Owen, *op. cit.*

† *Comptes Rendus*, t. 80, 1875, p. 998.

'curragh' (a boat made like the 'coracle,' with wooden ribs covered with tarred canvas) observed to seaward a large floating mass, surrounded by gulls. They pulled out to it, believing it to be wreck, but to their astonishment found it was an enormous cuttle-fish, lying perfectly still, as if basking on the surface of the water. Paddling up with caution, they lopped off one of its arms. The animal immediately set out to sea, rushing through the water at a tremendous pace. The men gave chase, and, after a hard pull in their frail canvas craft, came up with it, five miles out in the open Atlantic, and severed another of its arms and the head. These portions are now in the Dublin Museum. The shorter arms measure, each, eight feet in length, and fifteen inches round the base : the tentacular arms are said to have been thirty feet long. The body sank."

Finally, there is in our own national collection, preserved in spirit in a tall glass jar, a single arm of a huge cephalopod, which, by the kindness and courtesy of the officers of the department, I was permitted to examine and measure when I first described it, in May, 1873. It is 9 feet long, and 12 inches in circumference at the base, tapering gradually to a fine point. It has about 300 suckers, pedunculated, or set on tubular footstalks, placed alternately in two rows, and having serrated, horny rings, but no hooks ; the diameter of the largest of these rings is half an inch ; the smallest is not larger than a pin's head. This is one of the eight shorter, or pedal, and not one of the long, or tentacular, arms of the calamary to which it belonged. The relative length of the arms to that of the body and tentacles varies in different genera of the *Teuthidæ*, and it is not impossible that this may be the case even in individuals of the same species. But, judging from the proportions of known examples, I estimate the length of the tentacles at 36 feet, and that of the body at from 10 to 11 feet : total length 47 feet. The beak would probably have been about 5 inches long from hinge socket to point, and the diameter of the largest suckers of the tentacles about

1 inch. So much for De Montfort's "suckers as big as saucepan-lids." From a well-defined fold of skin which spreads out from each margin of that surface of the arm over which the suckers are situated, Professor Owen has given to this calamary the generic name of *Plectoteuthis*, with the specific title of *grandis* to indicate its enormous size. No history relating to this interesting specimen has been preserved. No one knows its origin, nor when it was received, but Dr. Gray told me that he believed it came from the east coast of South America. It has, however, long formed part of the stores of the British Museum, and, although previously open to public view, was more recently for many years kept in the basement chambers of the old building in Bloomsbury, which were irreverently called by the initiated "the spirit vaults and bottle department," because fishes, mollusca, &c., preserved in spirits were there deposited. I hope the public will have greater facility of access to it in the new Museum of Natural History.

Here, then, in our midst, and to be seen by all who ask permission to inspect it, is, and has long been, a limb of a great cephalopod capable of upsetting a boat, or of hauling a man out of her, or of clutching one engaged in scraping a ship's side, and dragging him under water, as described by the old master-mariner Magnus Dens. The tough supple tentacles, shot forth with lightning rapidity, would be long enough to reach him at a distance of a dozen yards, and strong enough to drag him within the grasp of the eight shorter arms, a helpless victim to the mandibles of a beak sufficiently powerful to tear him in pieces and crush some of his smaller bones. For, once within that dreadful embrace, his escape, unaided, would be impossible. The clinging power of this *Plectoteuthis* is so enormously augmented by the additional surface given by the expanded

folds to the under side of the arms, that I doubt if even one of the smaller whales, such as the "White Whale," or the "Pilot Whale," could extricate itself from their combined hold, if those eight supple, clammy, adhesive arms, each 9 feet long, and 5 inches in diameter at the base on the flat under surface, and armed with a battery of 2400 suckers, were once fairly lapped around it.

Ought it to surprise us, then, that an uneducated seafaring population, such as the fishermen of Fridrichstad, mentioned by Pontoppidan, absolutely ignorant of the habits and affinities, and even unacquainted with the real external form of such a creature, should exaggerate its dimensions and invest it with mystery? All that they knew of it was that whilst their friends and neighbours, whom we will call Eric Paulsen, Hans Ohlsen, and Olaf Bruhn were out fishing one calm day, a shapeless "something" rose just above the surface of the tranquil sea not far from their boat. They could see that there was much more of its bulk under water, but how far it extended they could not ascertain. Mistrusting its appearance, and with foreboding of danger, they were about to get up their anchor, when, suddenly, from thirty feet away, a rope was shot on board which fastened itself on Hans; he was dragged from amongst them towards the strange floating mass; there was a commotion; from the foaming sea upreared themselves, as it seemed to Eric and Olaf, several writhing serpents, which twined themselves around Hans; and as they gazed, helpless, in horror and bewilderment, the monsters sank, and with a mighty swirl the waters closed for ever over their unfortunate companion. The men would naturally hasten home, and describe the dreadful incident—their imagination excited by its mysterious nature; the tale would spread through the district, losing

nothing by repetition, and within a week the fabled Kraken would be the result.

The existence, in almost every sea, of calamaries capable of playing their part in such a scene has been fully proved, and this vexed question of marine zoology set at rest for ever. The "much greater light on this subject" which, as Pontoppidan sagaciously foresaw, was "reserved for posterity," has been thrown upon it by the discoveries of the last few years; and the "further experience which is always the best instructor," and which he correctly anticipated would be possessed by the "future writers," to whom he bequeathed the completion of his "sketch," has been obtained. Viewed by their aid, and seen in the clearer atmosphere of our present knowledge, the great sea monster which loomed so indefinitely vast in the mist of ignorance and superstition, stands revealed in its true form and proportions—its magnitude reduced, its outline distinct, and its mystery gone—and we recognise in the supposed Kraken, as the Norwegian bishop rightly conjectured that we should, an "animal of the Polypus (or cuttle) kind, and amongst the largest inhabitants of the ocean."

THE GREAT SEA SERPENT.

THE belief in the existence of sea serpents of formidable dimensions is of great antiquity. Aristotle, writing about B.C. 340, says* :—"The serpents of Libya are of an enormous size. Navigators along that coast report having seen a great quantity of bones of oxen, which they believe, without doubt, to have been devoured by the serpents. These serpents pursued them when they left the shore, and upset one of their triremes"—a vessel of a large class, having three banks of oars.

Pliny tells us† that a squadron sent by Alexander the Great on a voyage of discovery, under the command of Onesicritus and Nearchus, encountered, in the neighbourhood of some islands in the Persian Gulf, sea serpents thirty feet long, which filled the fleet with terror.

Valerius Maximus,‡ quoting Livy, describes the alarm into which, during the Punic wars, the Romans, under Attilius Regulus (who was afterwards so cruelly put to death by the Carthaginians), were thrown by an aquatic, though not marine, serpent which had its lair on the banks of the Bagrados, near Ithaca. It is said to have swallowed many of the soldiers, after crushing them in its folds, and to have kept the army from crossing the river, till at length, being invulnerable by ordinary weapons, it was destroyed by heavy stones hurled by balistas, catapults, and other military engines used in those days for casting heavy missiles, and battering the walls of

* 'History of Animals,' book 8, chap. 28.

† *Naturalis Historia*, lib. vi., cap. 23.

‡ *De Faciis, Dictisque Memorabilibus*, lib. i., cap. 8, 1st century.

fortified towns. According to the historian, the annoyance caused by it to the army did not cease with its death, for the water was polluted with its gore, and the air with the noxious fumes from its corrupted carcase, to such a degree that the Romans were obliged to remove their camp. They, however secured the animal's skin and skull, which were preserved in a temple at Rome till the time of the Numantine war. This combat has been described, to the same effect, by Florus (lib. ii.), Seneca (litt. 82), Silvius Italicus (l. vi.), Aulus Gellius (lib. vi., cap. 3), Orosius, Zonaras, &c., and is referred to by Pliny (lib. viii., cap. 14) as an incident known to every one. Diodorus Siculus also tells of a great serpent, sixty feet long, which lived chiefly in the water, but landed at frequent intervals to devour the cattle in its neighbourhood. A party was collected to capture it ; but their first attempt failed, and the monster killed twenty of them. It was afterwards taken in a strong net, carried alive to Alexandria, and presented to King Ptolemy II., the founder of the Alexandrian Library and Museum, who was a great collector of zoological and other curiosities. This snake was probably one of the great boas.

The "*Serpens marinus*" is figured and referred to by many other writers, but as they evidently allude to the Conger and the Murena, we will pass over their descriptions.

The sea serpents mentioned by Aristotle, Pliny, and Diodorus were, doubtless, real sea-snakes, true marine ophidians, which are more common in tropical seas than is generally supposed. They are found most abundantly in the Indian Ocean ; but they have an extensive geographical range, and between forty and fifty species of them are known. They are all highly poisonous, and some are so ferocious that they more frequently attack than avoid man.

The greatest length to which they are authentically known to attain is about twelve feet. The form and structure of these *hydrophides* are modified from those of land serpents, to suit their aquatic habits. The tail is compressed vertically, flattened from the sides, so as to form a fin like the tail of an eel, by which they propel themselves ; but instead of tapering to a point, it is rounded off at the end, like the blade of a paper-knife, or the scabbard of a cavalry sabre. Like other lung-breathing animals which live in water, they are also provided with a respiratory apparatus adapted to their circumstances and requirements—their nostrils, which are very small, being furnished, like those of the seal, manatee, &c., with a valve opening at will to admit air, and closing perfectly to exclude water.

Leaving these water-snakes of the tropics, we come, next in order of date, upon some very remarkable evidence that there was current amongst a community where we should little expect to find it, the idea of a marine monster corresponding in many respects with some of the descriptions given several centuries later of the sea serpent. In an interesting article on the Catacombs of Rome in the *Illustrated London News* of February 3rd, 1872, allusion is made by the author to the collection of sarcophagi or coffins of the early Christians, removed from the Catacombs, and preserved in the museum of the Lateran Palace, where they were arranged by the late Padre Marchi for Pope Pius IX. There are more than twenty of these, sculptured with various designs—the Father and the Son, Adam and Eve and the Serpent, the Sacrifice of Abraham, Moses striking the Rock, Daniel and the Lions, and other Scripture themes. Amongst them also is Jonah and the “whale.” A facsimile of this sculpture (Fig. 12) is one of the illustrations of the article referred to. It will be seen that Jonah

is being swallowed feet foremost, or possibly being ejected head first, by an enormous sea monster, having the chest and fore-legs of a horse, a long arching neck, with a mane at its base, near the shoulders, a head like nothing in nature, but having hair upon and beneath the cheeks, the hinder portion of the body being that of a serpent of prodigious length, undulating in several vertical curves. This sculpture appears to have been cut between the beginning and the middle of the third century, about



FIG. 12.—JONAH AND THE SEA MONSTER.

From the Catacombs of Rome.

A.D. 230, but it probably represents a tradition of far greater antiquity.

We will now consider the accounts given by Scandinavian historians, of the sea serpent having been seen in northern waters. Here, I suppose, I ought to indulge in the usual flippant sneer at Bishop Pontoppidan. I know that in abstaining from doing so I am sadly out of the fashion; but I venture to think that the dead lion has been kicked at too often already, and undeservedly. Whether there be, or be not, a huge marine animal, not necessarily an ophidian, answering to some of the descriptions of the sea serpent—so called—Pontoppidan did not invent the stories told of its appearance. Long before he was born the monster had been described and figured; and for centuries previously the Norwegians, Swedes, Danes, and Fins had believed in its

existence as implicitly as in the tenets of their religious creed. Olaus Magnus, Archbishop of Upsala, in Sweden, wrote of it in A.D. 1555 as follows :*—

“They who in works of navigation on the coasts of Norway employ themselves in fishing or merchandize do all agree in this strange story, that there is a serpent there which is of a vast magnitude, namely 200 foot long, and moreover, 20 foot thick ; and is wont to live in rocks and caves towards the sea-coast about Berge : which will go alone from his holes on a clear night in summer, and devour calves, lambs, and hogs, or else he goes into the sea to feed on polypus (octopus), locusts (lobsters), and all sorts of sea-crabs. He hath commonly hair hanging from his neck a cubit long, and sharp scales, and is black, and he hath flaming, shining eyes. This snake disquiets the shippers ; and he puts up his head on high like a pillar, and catcheth away men, and he devours them ; and this happeneth not but it signifies some wonderful change of the kingdom near at hand ; namely, that the princes shall die, or be banished ; or some tumultuous wars shall presently follow. There is also another serpent of an incredible magnitude in an island called Moos in the diocess of Hammer ; which, as a comet portends a change in all the world, so that portends a change in the kingdom of Norway, as it was seen anno 1522 ; that lifts himself high above the waters, and rolls himself round like a sphere.† This serpent was thought to be fifty cubits long by conjecture, by sight afar off : there followed this the banishment of King Christiernus, and a great persecution of the Bishops ; and it shewed also the destruction of the country.”

The Gothic Archbishop, amongst other signs and omens, also attributes this power of divination to the small red ants which are sometimes so troublesome in houses, and declares that they also portended the downfall, A.D. 1523, of the abominably cruel Danish king, Christian II., above mentioned. His curious work is full of wild improbabilities and odd superstitions, most of which he states with a calm air of unquestioning assent ; but as he wrote in the

* *Historia de Gentibus Septentrionalibus*, lib. xxi., cap. 43.

† “Coils itself in spherical convolutions” is a better translation of the original Latin.

time of our Henry VIII., long before the belief in witches and warlocks, fairies and banshees, had died out in our own country, we can hardly throw stones at him on that score. It is a most amusing and interesting history, and gives a wonderful insight of the habits and customs of the northern nations in his day.

Amongst his illustrations of the sea monsters he describes are the two of which I give facsimiles on the next page. In Fig. 13 a sea serpent is seen writhing in many coils upon the surface of the water, and having in its mouth a sailor, whom it has seized from the deck of a ship. The poor fellow is trying to grasp the ratlins of the shrouds, but is being dragged from his hold and lifted over the bulwarks by the monster. His companions, in terror, are endeavouring to escape in various directions. One is climbing aloft by the stay, in the hope of getting out of reach in that way, whilst two others are hurrying aft to obtain the shelter of a little castle or cabin projecting over the stern. I am strongly of the opinion that this is but the fallacious representation of an actual occurrence. Read by the light of recent knowledge, these old pictures convey to a practised eye a meaning as clear as that of hieroglyphics to an Egyptologist, and my translation of this is the following. The crew of a ship have witnessed the dreadful sight of a serpent-like form issuing from the sea, rising over the bulwarks of their vessel, seizing one of their messmates from amongst them, and dragging him overboard and under water. Awe-stricken by the mysterious disappearance of their comrade, and too frightened and anxious for their own safety to be able, during the short space of time occupied by an affair which all happened in a few seconds to observe accurately their terrible assailant, they naturally conjecture that it must have been a snake. It was pro-



FIG. 13.—A SEA SERPENT SEIZING A MAN ON BOARD SHIP.

After OLAUS MAGNUS.



FIG. 14.—A GIGANTIC LOBSTER DRAGGING A MAN FROM A SHIP.

After OLAUS MAGNUS.

bably a gigantic calamary, such as we now know exist, and the dead carcasses of which have been found in the locality where the event depicted is supposed to have taken place. The presumed body of the serpent was one of the arms of the squid, and the two rows of suckers thereto belonging are indicated in the illustration by the medial line traversing its whole length (intended to represent a dorsal fin) and the double row of transverse septa, one on each side of it.

In Fig. 14 an enormous lobster is in the act of similarly dragging overboard from a vessel a man whom it has seized by the arm with one of its great claws. From the crude image of a lobster having eight minor claws and two larger ones, to that of a cuttle having eight minor arms and two longer ones, the transition is not great ; and I believe that this also is a pictorial misrepresentation of a casualty by the attack of a calamary similar to that above described, possibly another view of the same incident. The idea is that of a sea animal capable of suddenly seizing and grasping a man, and we must remember that we have evidence, in the writings of Pontoppidan and others, that, even two centuries later than Olaus Magnus, the Norsemen's knowledge of the cuttles was exceedingly vague and indistinct. Any one who has seen, as I frequently have at the Brighton Aquarium, and as they doubtless had whilst lobster-catching, the threatening and ferocious manner in which a lobster will brandish, and, if I may use the term, "gnash" its claws at an intruding hand, even if held above the surface of the water, can well imagine a party of fishermen discussing such a tragic occurrence as the foregoing, and differing in opinion as to the identity of the creature which had caused the catastrophe, some maintaining that it must have been a sea serpent, and others shaking their

heads and asserting that nothing but a colossal lobster could have done it.

Pontoppidan, in writing his history of Norway, of course had before him the statements of Olaus Magnus; but, though their author was an archbishop, he did not accept them with the childlike simplicity generally ascribed to him. Quoting, and, singularly enough, misquoting, the Swedish prelate as referring to a sea serpent, when he is describing, incorrectly, one of the *Acalephæ*, or sea-nettles, Pontoppidan says:—

“I have never heard of this sort, and should hardly believe the good Olaus if he did not say that he affirmed this from his own experience. The disproportion makes me think there must be some error of the press . . . He mixes truth and fable together according to the relations of others; but this was excusable in that dark age when that author wrote. Notwithstanding all this, we, in the present more enlightened age, are much obliged to him for his industry and judicious observations.”

Of the sea serpent Pontoppidan writes:—

“I have questioned its existence myself, till that suspicion was removed by full and sufficient evidence from creditable and experienced fishermen and sailors in Norway, of which there are hundreds who can testify that they have annually seen them. All these persons agree very well in the general description; and others who acknowledge that they only know it by report or by what their neighbours have told them, still relate the same particulars. In all my inquiry about these affairs I have hardly spoke with any intelligent person born in the manor of Nordland who was not able to give a pertinent answer, and strong assurances of the existence of this fish; and some of our north traders that come here every year with their merchandize think it a very strange question when they are seriously asked whether there be any such creature: they think it as ridiculous as if the question was put to them whether there be such fish as eel or cod.”

The worthy Bishop of Bergen did his best to sift truth from fable, but he could not always succeed in separating them. Many stupendous falsehoods were brought to him,

and some of them passed through his sieve in spite of his care. Of these are the accounts of the "spawning times" of the sea serpent; its dislike of certain scents, &c. We must pass over all this, and confine ourselves to the evidence offered by him of its having been seen.

The first witness he adduces is Captain Lawrence de Ferry, of the Norwegian navy, and first pilot in Bergen, who, premising that he had doubted a great while whether there were any such creature till he had ocular demonstration of it, made the following statement, addressed formally and officially to the procurator of Bergen :—

"Mr. JOHN REUTZ—

"The latter end of August, in the year 1746, as I was on a voyage, on my return from Trundhiem, on a very calm and hot day, having a mind to put in at Molde, it happened that when we were arrived with my vessel within six English miles of the aforesaid Molde, being at a place called Jule-Næss, as I was reading in a book, I heard a kind of a murmuring voice from amongst the men at the oars, who were eight in number, and observed that the man at the helm kept off from the land. Upon this I inquired what was the matter, and was informed that there was a sea-snake before us. I then ordered the man at the helm to keep to the land again, and to come up with this creature of which I had heard so many stories. Though the fellows were under some apprehension, they were obliged to obey my orders." In the meantime the sea-snake passed by us, and we were obliged to tack the vessel about in order to get nearer to it. As the snake swam faster than we could row, I took my gun, that was ready charged, and fired at it; on this he immediately plunged under the water. We rowed to the place where it sunk down (which in the calm might be easily observed) and lay upon our oars, thinking it would come up again to the surface; however it did not. Where the snake plunged down, the water appeared thick and red; perhaps some of the shot might wound it, the distance being very little. The head of this snake, which it held more than two feet above the surface of the water resembled that of a horse. It was of a greyish colour, and the mouth was quite black, and very large. It had black eyes, and a long white mane, that hung down from the neck to the surface of the water,

Besides the head and neck, we saw seven or eight folds, or coils, of this snake, which were very thick, and as far as we could guess there was about a fathom distance between each fold. I related this affair in a certain company, where there was a person of distinction present who desired that I would communicate to him an authentic detail of all that happened ; and for this reason two of my sailors, who were present at the same time and place where I saw this monster, namely, Nicholas Pederson Kopper, and Nicholas Nicholsen Anglewigen, shall appear in court, to declare on oath the truth of every particular herein set forth ; and I desire the favour of an attested copy of the said descriptions.

“ I remain, Sir, your obliged servant,

“ L. DE FERRY.

“ Bergen, 21st February, 1751.

“ After this the before-named witnesses gave their corporal oaths, and, with their finger held up according to law, witnessed and confirmed the aforesaid letter or declaration, and every particular set forth therein to be strictly true. A copy of the said attestation was made out for the said Procurator Reutz, and granted by the Recorder. That this was transacted in our court of justice we confirm with our hand and seals. *Actum Bergis die et loco, ut supra.*

“ A. C. DASS (*Chief Advocate*).

“ H. C. GARTNER (*Recorder*).”

The figure of the sea serpent (Fig. 15) given by Pontopidan was drawn, he tells us, under the inspection of a clergyman, Mr. Hans Strom, from descriptions given of it by two of his neighbours, Messrs. Reutz and Teuchsen, of Herroe ; and was declared to agree in every particular with that seen by Captain de Ferry, and another subsequently observed by Governor Benstrup. The supposed coils of the serpent's body present exactly the appearance of eight porpoises following each other in line. This is a well-known habit of some of the smaller cetacea. They are often met with at sea thus proceeding in close single file, part only of their rotund forms being visible as they raise their backs above the surface of the water to inhale

air through their "blow-holes." Under these circumstances they have been described by naturalists and seamen as resembling a long string of casks or buoys, often extending for sixty, eighty, or a hundred yards. This is just such a spectacle as that described by Olaus Magnus—his "long line of spherical convolutions," and also as one reported to Pontoppidan as being descriptive of the sea-serpent:—

"I have been informed,' he says, 'by some of our sea-faring men that a cable * would not be long enough to measure the length of some of them when they are observed on the surface of the water in an even line. They say those round lumps or folds sometimes lie one after another as far as a man can see. I confess, if this be true, that we must suppose most probably that it is not one snake, but two or more of these creatures lying in a line that exhibit this phenomenon,' In a foot-note he adds: 'If any one enquires how many folds may be counted on a sea-snake, the answer is that the number is not always the same, but depends upon the various sizes of them: five and twenty is the greatest number that I find well attested.' Adam Olearius, in his *Gottorf Museum*, writes of it thus: 'A person of distinction from Sweden related here at Gottorf that he had heard the burgomaster of Malmoe, a very worthy man, say that as he was once standing on the top of a very high hill, towards the North Sea, he saw in the water, which was very calm, a

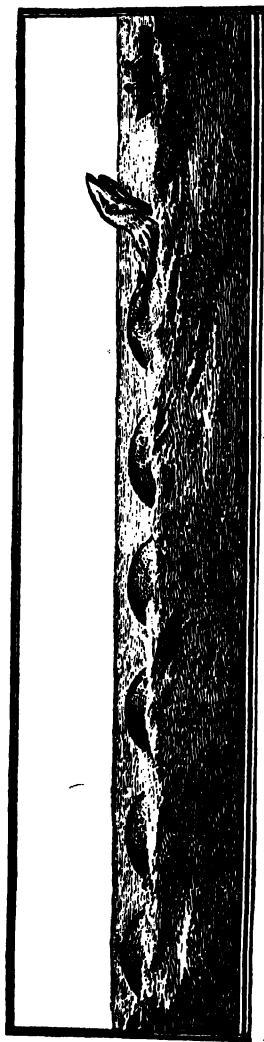


FIG. 15.—PONTOPPIDAN'S
"SEA SERPENT."

* Six hundred feet.

snake, which appeared at that distance to be as thick as a pipe of wine, and had twenty-five folds. Those kind of snakes only appear at certain times, and in calm weather.' ”

I believe that in every case so far cited from Pontoppidan, as well as that given by Olaus Magnus, the supposed coils or protuberances of the serpent's body were only so many porpoises swimming in line in accordance with their habit before mentioned. If an upraised head, like that of a horse, was seen preceding them, it was either unconnected with them, or it certainly was not that of a snake ; for no serpent could throw its body into those vertical undulations. The form of the vertebræ in the ophidians renders 'such a movement impossible. All their flexions are horizontal ; the curving of their body is from side to side, not up and down.

The sea monster seen by Egede was of an entirely different kind ; and his account of it—let sceptics deride it as they may—is worthy of attention and careful consideration. The Rev. Hans Egede, known as “The Apostle of Greenland,” was superintendent of the Christian missions to that country. He was a truthful, pious, and single-minded man, possessing considerable powers of observation, and a genuine love of natural history. He wrote two books on the products, people, and natural history of Greenland,* and his statements therein are modest, accurate, and free from exaggeration. His illustrations are little, if at all, superior in style of art to the two Japanese wood-cuts shown on page 353, but they bear the same unmistakable signs of fidelity which characterise those of the Japanese.

* ‘*Des alten Grönlands neue perlustration,*’ 8vp., Frankfurt, 1730, and ‘*Det Gamle Grönlands nye perlustratione eller Naturel Historie,*’ 4to., Copenhagen, 1741.

In his 'Journal of the Missions to Greenland' this author tell us that—

"On the 6th of July, 1734, there appeared a very large and frightful sea monster, which raised itself so high out of the water that its head reached above our main-top. It had a long, sharp snout, and spouted water like a whale; and very broad flappers. The body seemed to be covered with scales, and the skin was uneven and wrinkled, and the lower part was formed like a snake. After some time the creature plunged backwards into the water, and then turned its tail up above the surface, a whole ship-length from the head. The following evening we had very bad weather."

The high character of the narrator would lead us to accept his statement that he had seen something previously unknown to him (he does not say it was a sea-serpent) even if we could not explain or understand what it was that he saw. Fortunately, however, the sketch made by Mr. Bing, one of his brother missionaries, has enabled us to do this. We must remember that in his endeavour to portray the incident he was dealing with an animal with the nature of which he was unacquainted, and which was only partially, and for a very short time, within his view. He therefore delineated rather the impression left on his mind than the thing itself. But although he invested it with a character that did not belong to it, his drawing is so far correct that we are able to recognise at a glance the distorted portrait of an old acquaintance, and to say unhesitatingly that Egede's sea monster was one of the great calamaries which have since been occasionally met with, but which have only been believed in and recognised within the last few years. That which Mr. Egede believed to be the creature's head was the tail part of the cuttle, which goes in advance as the animal swims, and the two side appendages represent very efficiently the two lobes of the caudal fin. In propelling itself to the surface the squid

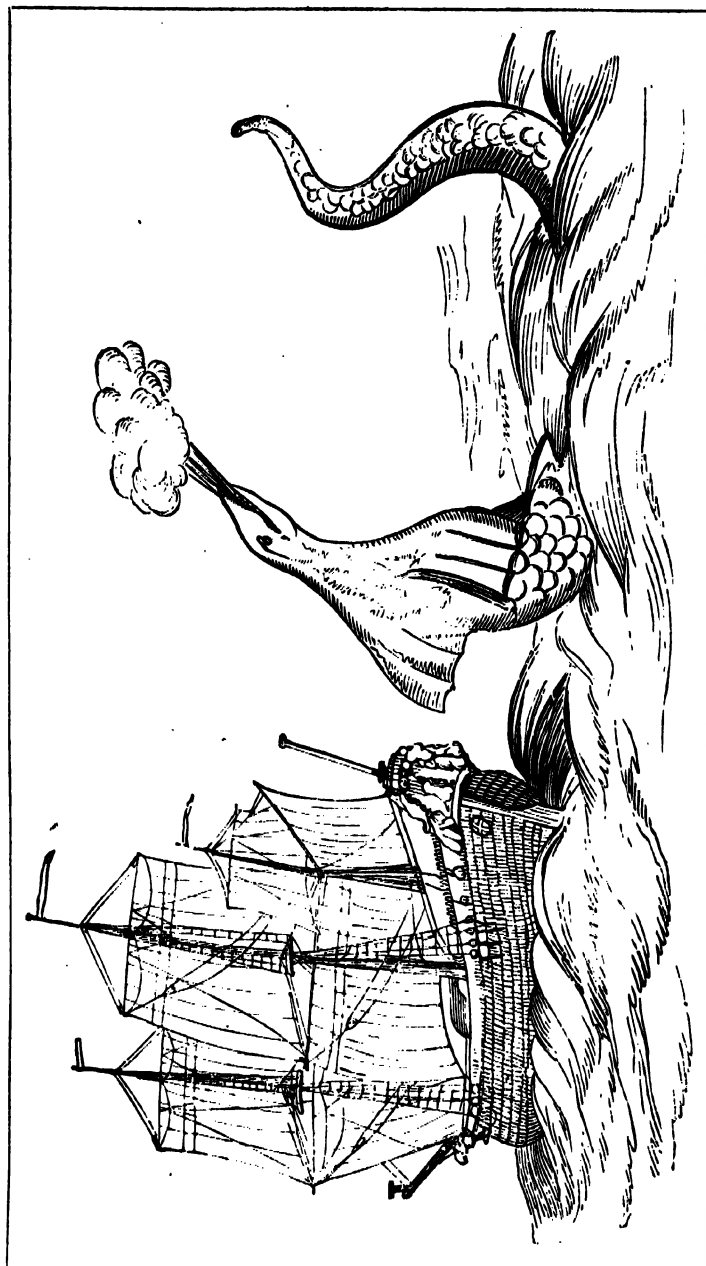


FIG. 16.—THE ANIMAL DRAWN BY MR. BING AS HAVING BEEN SEEN BY HANS EGEDE.

raised this portion of its body out of the water to a considerable height, an occurrence which I have often witnessed, and which I have elsewhere described (see p. 347). The supposed tail, which was turned up at some

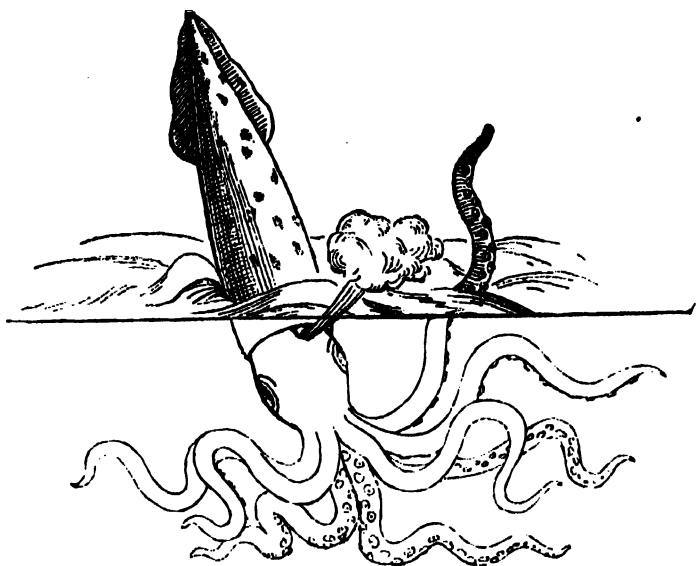


FIG. 17.—THE ANIMAL WHICH EGEDÉ PROBABLY SAW.

distance from the other visible portion of the body, after the latter had sunk back into the sea, was one of the shorter arms of the cuttle, and the suckers on its under side are clearly and conspicuously marked. Egedé was, of course, in error in making the "spout" of water to issue from the mouth of his monster. The out-pouring jet, which he, no doubt, saw, came from the locomotor tube, and the puff of spray which would accompany it as the orifice of the tube rose to the surface of the water is sketched with remarkable truthfulness. In quoting Egedé, Pontoppidan gives a copy (so-called) of this engraving, but his artist embellished it so much as to deprive it of its

original force and character, and of the honestly drawn points which furnish proofs of its identity.

Pontoppidan records other supposed appearances of the sea serpent, but from the date of his history I know of no other account of such an occurrence until that of an animal "apparently belonging to this class," which was stranded on the Island of Stronsa, one of the Orkneys, in the year 1808 :—

"According to the narrative, it was first seen entire, and measured by respectable individuals. It measured fifty-six feet in length, and twelve in circumference. The head was small, not being a foot long from the snout to the first vertebra; the neck was slender, extending to the length of fifteen feet. All the witnesses agree in assigning it blow-holes, though they differ as to the precise situation. On the shoulders something like a bristly mane commenced which extended to near the extremity of the tail. It had three pairs of fins or paws connected with the body; the anterior were the largest, measuring more than four feet in length, and their extremities were something like toes partially webbed. The skin was smooth and of a greyish colour; the eye was of the size of a seal's. When the decaying carcass was broken up by the waves, portions of it were secured (such as the skull, the upper bones of the swimming paws, &c.) by Mr. Laing, a neighbouring proprietor, and some of the vertebræ were preserved and deposited in the Royal University Museum, Edinburgh, and in the Museum of the Royal College of Surgeons, London. An able paper," says Dr. Robert Hamilton, in his account of it,* "on these latter fragments and on the wreck of the animal was read by the late Dr. Barclay to the Wernerian Society, and will be found in Vol. I.



FIG. 18.—THE "SEA SERPENT" OF THE WERNERIAN SOCIETY. (*Facsimile.*)

of its Transactions, to which we refer. We have supplied a wood-cut of the sketch" (of which I give a *facsimile* here) "which was taken at

the time, and which, from the many affidavits proffered by respectable individuals, as well as from other circumstances narrated, leaves no manner of doubt as to the existence of some such animal."

Well! one would think so. It looks convincing, and there is a savour of philosophy about it that might lull the suspicions of a doubting zoologist. What more could be required? We have accurate measurements and a sketch taken of the animal as it lay upon the shore, minute particulars of its outward form, characteristic portions of its skeleton preserved in well-known museums, and any amount of affidavits forthcoming from most respectable individuals if confirmation be required. And yet,

"'Tis true, 'tis pity;
And pity 'tis 'tis true,"

the whole fabric of circumstances crumbled at the touch of science. When the two vertebræ in the Museum of the Royal College of Surgeons were examined by Sir Everard Home he pronounced them to be those of a great shark of the genus *Selache*, and as being undistinguishable from those of the species called the "basking shark," of which individuals from thirty to thirty-five feet in length have been from time to time captured or stranded on our coasts. Professor Owen has confirmed this. Any one who feels inclined to dispute the identification by this distinguished comparative anatomist of a bone which he has seen and handled can examine these vertebræ for himself. If they had not been preserved, this incident would have been cited for all time as among the most satisfactorily authenticated instances on record of the appearance of the sea serpent. As it is, it furnishes a valuable warning of the necessity for the most careful scrutiny of the evidence of well-meaning persons to whom no intentional deception or exaggeration can be imputed.

In 1809, Mr. Maclean, the minister of Eigg, in the Western Isles of Scotland, informed Dr. Neill, the secretary of the Wernerian Society, that he had seen, off the Isle of Canna, a great animal which chased his boat as he hurried ashore to escape from it; and that it was also seen by the crews of thirteen fishing-boats, who were so terrified by it that they fled from it to the nearest creek for safety. His description of it is exceedingly vague, but is strongly indicative of a great calamary.

In 1817 a large marine animal, supposed to be a serpent, was seen at Gloucester Harbour, near Cape Ann, Massachusetts, about thirty miles from Boston. The Linnæan Society of New England investigated the matter, and took much trouble to obtain evidence thereon. The depositions of eleven credible witnesses were certified on oath before magistrates, one of whom had himself seen the creature, and who confirmed the statements. All agreed that the animal had the appearance of a serpent, but estimated its length, variously, at from fifty to a hundred feet. Its head was in shape like that of a turtle, or snake, but as large as the head of a horse. There was no appearance of a mane. Its mode of progressing was by vertical undulations; and five of the witnesses described it as having the hunched protuberances mentioned by Captain de Ferry and others. Of this, I can offer no zoological explanation. The testimony given was apparently sincere, but it was received with mistrust; for, as Mr. Gosse says, "owing to a habit prevalent in the United States of supposing that there is somewhat of wit in gross exaggeration or hoaxing invention, we do naturally look with a lurking suspicion on American statements when they describe unusual or disputed phenomena."

On the 15th of May, 1833, a party of British officers,

consisting of Captain Sullivan, Lieutenants Maclachlan and Malcolm of the Rifle Brigade, Lieutenant Lister of the Artillery, and Mr. Ince of the Ordnance, whilst crossing Margaret's Bay in a small yacht, on their way from Halifax to Mahone Bay, "saw, at a distance of a hundred and fifty to two hundred yards, the head and neck of some denizen of the deep, precisely like those of a common snake in the act of swimming, the head so far elevated and thrown forward by the curve of the neck, as to enable them to see the water under and beyond it. The creature rapidly passed, leaving a regular wake, from the commencement of which to the fore part, which was out of water, they judged its length to be about eighty feet." They "set down the head at about six feet in length (considerably larger than that of a horse), and that portion of the neck which they saw at the same." "There could be no mistake—no delusion," they say; "and we were all perfectly satisfied that we had been favoured with a view of the true and veritable sea serpent." This account was published in the *Zoologist*, in 1847 (p. 1715), and at that date all the officers above named were still living.

The next incident of the kind in point of date that we find recorded carries us back to the locality of which Pontoppidan wrote, and in which was seen the animal vouched for by Captain de Ferry. In 1847 there appeared in a London daily paper a long account translated from the Norse journals of fresh appearances of the sea serpent. The statement made was, that it had recently been frequently seen in the neighbourhood of Christiansand and Molde. In the large bight of the sea at Christiansand it had been seen every year, only in the warmest weather, and when the sea was perfectly calm, and the surface of the water unruffled. The evidence of three respectable

persons was taken, namely, Nils Roe, a workman at Mr. William Knudtzon's, who saw it twice there, John Johnson, merchant, and Lars Johnöen, fisherman at Smolen. The latter said he had frequently seen it, and that one afternoon in the dog-days, as he was sitting in his boat, he saw it twice in the course of two hours, and quite close to him. It came, indeed, to within six feet of him, and, becoming alarmed, he commended his soul to God, and lay down in the boat, only holding his head high enough to enable him to observe the monster. It passed him, disappeared, and returned ; but, a breeze springing up, it sank, and he saw it no more. He described it as being about six fathoms long, the body (which was as round as a serpent's) two feet across, the head as long as a ten-gallon cask, the eyes large, round, red, sparkling, and about five inches in diameter : close behind the head a mane like a fin commenced along the neck, and spread itself out on both sides, right and left, when swimming. The mane, as well as the head, was of the colour of mahogany. The body was quite smooth, its movements occasionally fast and slow. It was serpent-like, and moved up and down. The few undulations which those parts of the body and tail that were out of water made, were scarcely a fathom in length. These undulations were not so high that he could see between them and the water.

In confirmation of this account Mr. Soren Knudtzon, Dr. Hoffmann, surgeon in Molde, Rector Hammer, Mr. Kraft, curate, and several other persons, testified that they had seen in the neighbourhood of Christiansand a sea serpent of considerable size.

Mr. William Knudtzon, and Mr. Bochlum, a candidate for holy orders, also gave their account of it, much to the same purport ; but some of these remarks are worthy of

note for future comment. They say, "its motions were in undulations; and so strong that white foam appeared before it, and at the side, which stretched out several fathoms. It did not appear very high out of the water; the head was long and small in proportion to the throat: as the latter appeared much greater than the former, probably it was furnished with a mane."

Sheriffe Götsche testified to a similar effect. "He could not judge of the animal's entire length; he could not observe its extremity. At the back of the head there was a mane, which was the same colour as the rest of the body."

We must take one more Norwegian account, for it is a very important one. The venerable P. W. Deinbolt,* Arch-deacon of Molde, gives the following account of an incident that occurred there on the 28th of July, 1845:

"J. C. Lund, bookseller and printer; G. S. Krogh, merchant; Christian Flang, Lund's apprentice, and John Elgenses, labourer, were out on Romsdal-fjord, fishing. The sea was, after a warm, sunshiny day, quite calm. About seven o'clock in the afternoon, at a little distance from the shore, near the ballast place and Molde Hooe, they saw a long marine animal, which slowly moved itself forward, as it appeared to them, with the help of two fins, on the fore-part of the body nearest the head, which they judged by the boiling of the water on both sides of it. The visible part of the body appeared to be between forty and fifty feet in length, and moved in undulations, like a snake. The body was round and of a dark colour, and seemed to be several ells in thickness. As they discerned a waving motion in the water behind the animal, they concluded that part of the body was concealed under water. That it was one continuous animal they saw plainly from its movement. When the animal was about one hundred yards from the boat, they noticed tolerably correctly its fore parts, which ended in a sharp snout; its colossal head raised itself above the water in the form of a semi-circle; the lower part was not visible. The colour of the head was dark-brown and the skin smooth; they

* Hitherto erroneously printed "Deinboll."

did not notice the eyes, or any mane or bristles on the throat. When the serpent came about a musket-shot near, Lund fired at it, and was certain the shots hit it in the head. After the shot it dived, but came up immediately. It raised its neck in the air, like a snake preparing to dart on his prey. After he had turned and got his body in a straight line, which he appeared to do with great difficulty, he darted like an arrow against the boat. They reached the shore, and the animal, perceiving it had come into shallow water, dived immediately and disappeared in the deep. Such is the declaration of these four men, and no one has cause to question their veracity, or imagine that they were so seized with fear that they could not observe what took place so near them. There are not many here, or on other parts of the Norwegian coast, who longer doubt the existence of the sea serpent. The writer of this narrative was a long time sceptical, as he had not been so fortunate as to see this monster of the deep ; but after the many accounts he has read, and the relations he has received from credible witnesses, he does not dare longer to doubt the existence of the sea serpent.

“ P. W. DEINBOLT.

“ Molde, 29th Nov., 1845.”

We may at once accept most fully and frankly the statements of all the worthy people mentioned in this series of incidents. There is no room for the shadow of a doubt that they all recounted conscientiously that which they saw. The last quoted occurrence, especially, is most accurately and intelligently described—so clearly, indeed, that it furnishes us with a clue to the identity of the strange visitant.

Here let me say—and I wish it to be distinctly understood—that I do not deny the possibility of the existence of a great sea serpent, or other great creatures at present unknown to science, and that I have no inclination to explain away that which others have seen, because I myself have not witnessed it. “ Seeing is believing,” it is said, and it is not agreeable to have to tell a person that, in common parlance, he “ must not trust his own eyes.” It seems presumptuous even to hint that one may know

better what was seen than the person who saw it. And yet I am obliged to say, reluctantly and courteously, but most firmly and assuredly, that these perfectly credible eye-witnesses did not correctly interpret that which they saw. In these cases, it is not the eye which deceives, nor the tongue which is untruthful, but the imagination which is led astray by the association of the thing seen with an erroneous idea. I venture to say this, not with any insolent assumption of superior acumen, but because we now possess a key to the mystery which Archdeacon Deinbolt and his neighbours had not access to, and which has only within the last few years been placed in our hands. The movements and aspect of their sea monster are those of an animal with which we are now well acquainted, but of the existence of which the narrators of these occasional visitations were unaware; namely, the great calamary, the same which gave rise to the stories of the Kraken, and which has probably been a denizen of the Scandinavian seas and fjords from time immemorial. It must be remembered, as I have elsewhere said, that until the year 1873, notwithstanding the adventure of the *Alecton* in 1861, a cuttle measuring in total length fifty or sixty feet was generally looked upon as equally mythical with the great sea serpent. Both were popularly scoffed at, and to express belief in either was to incur ridicule. But in the year above mentioned, specimens of even greater dimensions than those quoted were met with on the coasts of Newfoundland, and portions of them were deposited in museums, to silence the incredulous and interest zoologists. When Archdeacon Deinbolt published in 1846 the declaration of Mr. Lund and his companions of the fishing excursion, he and they knew nothing of there being such an animal. They had formed no conception of it, nor had

they the instructive privilege, possessed of late years by the public in England, of being able to watch attentively, and at leisure, the habits and movements of these strangely modified mollusks living in great tanks of sea-water in aquaria. If they had been thus acquainted with them, I believe they would have recognised in their supposed snake the elongated body of a giant squid.

When swimming, these squids propel themselves backwards by the out-rush of a stream of water from a tube pointed in a direction contrary to that in which the animal is proceeding. The tail part, therefore, goes in advance, and the body tapers towards this, almost to a blunt point. At a short distance from the actual extremity two flat fins project from the body, one on each side, as shown in Figs. 17 and 19, so that this end of the squid's body somewhat resembles in shape the government "broad arrow." It is a habit of these squids, the small species of which are met with in some localities in teeming abundance, to swim on the smooth surface of the water in hot and calm weather. The arrow-headed tail is then raised out of water, to a height which in a large individual might be three feet or more; and, as it precedes the rest of

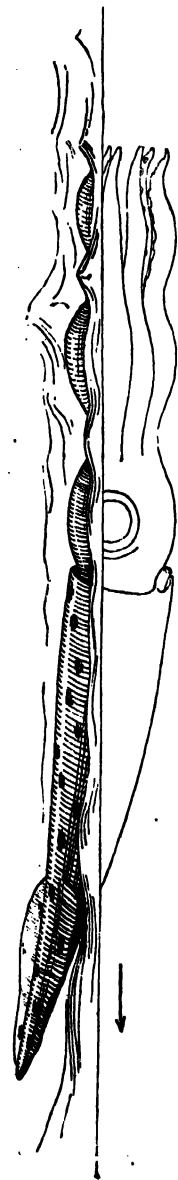


FIG. 19.—A CALAMARY SWIMMING AT THE SURFACE OF THE SEA.

the body, moving at the rate of several miles an hour, it

of course looks, to a person who has never heard of an animal going tail first at such a speed, like the creature's head. The appearance of this "head" varies in accordance with the lateral fins being seen in profile or in broad expanse. The elongated, tubular-looking body gives the idea of the neck to which the "head" is attached; the eight arms trailing behind (the tentacles are always coiled away and concealed) supply the supposed mane floating on each side; the undulating motion in swimming, as the water is alternately drawn in and expelled, accords with the description, and the excurrent stream pouring aft from the locomotor tube, causes a long swirl and swell to be left in the animal's wake, which, as I have often seen, may easily be mistaken for an indefinite prolongation of its body. The eyes are very large and prominent, and the general tone of colour varies through every tint of brown, purple, pink, and grey, as the creature is more or less excited, and the pigmentary matter circulates with more or less vigour through the curiously moving cells.

Here we have the "long marine animal" with "two fins on the forepart of the body near the head," the "boiling of the water," the "moving in undulations," the "body round and of a dark colour," the "waving motion in the water behind the animal, from which the witnesses concluded that part of the body was concealed under water," the "head raised, but the lower part not visible," "the sharp snout," the "smooth skin," and the appearance described by Mr. William Knudtzon, and Candidatus Theologiæ Bochlum, of "the head being long and small in proportion to the throat, the latter appearing much greater than the former," which caused them to think "it was *probably* furnished with a mane." Not that they *saw* any mane, but as they had been told of it, they thought they *ought to have seen it*. Less careful and conscientious persons would have

persuaded themselves, and declared on oath, that they *did see it*.

I need scarcely point out how utterly irreconcilable is the proverbially smooth, gliding motion of a serpent, with the supposition of its passage through the water causing such frictional disturbance that "white foam appeared before it, and at the side, which stretched out several fathoms," and of "the water boiling around it on both sides of it." The cuttle is the only animal that I know of that would cause this by the effluent current from its "syphon tube." I have seen a deeply laden ship push in front of her a vast hillock of water, which fell off on each side in foam as it was parted by her bow ; but that was of man's construction. Nature builds on better lines. No swimming creature has such unnecessary friction to overcome. Even the seemingly unwieldy body of a porpoise enters and passes through the water without a splash, and nothing can be more easy and graceful than the feathering action of the flippers of the awkward-looking turtle.

We now come to an incident which, from the character of those who witnessed it, immediately commanded attention, and excited popular curiosity. In the *Times* of the 9th of October, 1848, appeared a paragraph stating that a sea serpent had been met with by the *Dædalus* frigate, on her homeward voyage from the East Indies. The Admiralty immediately inquired of her commander, Captain M'Quhæ, as to the truth of the report ; and his official reply, as follows, addressed to Admiral Sir W. H. Gage, G.C.H., Devonport, was printed in the *Times* of the 13th of October, 1848.

" H.M.S. *Dædalus*, Hamoaze,
" October 11th, 1848.

" SIR,—In reply to your letter of this date, requiring information as to the truth of the statement published in the *Times* newspaper, of a sea serpent of extraordinary dimensions having been seen from H.M.S.

Dædalus, under my command, on her passage from the East Indies, I have the honour to acquaint you, for the information of my Lords Commissioners of the Admiralty, that at 5 o'clock P.M. on the 6th of Aug. last, in lat. $24^{\circ} 44'$ S. and long. $9^{\circ} 22'$ E., the weather dark and cloudy, wind fresh from the N.W. with a long ocean swell from the W., the ship on the port tack, head being N.E. by N., something very unusual was seen by Mr. Sartoris, midshipman, rapidly approaching the ship from before the beam. The circumstance was immediately reported by him to the officer of the watch, Lieut. Edgar Drummond, with whom and Mr. Wm. Barrett, the Master, I was at the time walking the quarter-deck. The ship's company were at supper. On our attention being called to the object it was discovered to be an enormous serpent, with head and shoulders kept about four feet constantly above the surface of the sea, and, as nearly as we could approximate by comparing it with what the length of our main-topsail yard would show in the water, there was, at the very least, sixty feet of the animal *à fleur d'eau*, no portion of which was, to our perception, used in propelling it through the water, either by vertical or horizontal undulation. It passed rapidly, but so close under our lee quarter that had it been a man of my acquaintance I should easily have recognised his features with the naked eye; and it did not, either in approaching the ship or after it had passed our wake, deviate in the slightest degree from its course to the S.W., which it held on at the pace of from twelve to fifteen miles per hour, apparently on some determined purpose.

"The diameter of the serpent was about fifteen or sixteen inches behind the head, which was without any doubt that of a snake; and it was never, during the twenty minutes it continued in sight of our glasses, once below the surface of the water; its colour dark brown, and yellowish white about the throat. It had no fins, but something like the mane of a horse, or rather a bunch of seaweed, washed about its back. It was seen by the quartermaster, the boatswain's mate, and the man at the wheel, in addition to myself and the officers above mentioned.

"I am having a drawing of the serpent made from a sketch taken immediately after it was seen, which I hope to have ready for transmission to my Lords Commissioners of the Admiralty by to-morrow's post.—PETER M'QUHÆ, Captain."

The sketches referred to in the captain's letter were made under his supervision, and copies of them, of which he

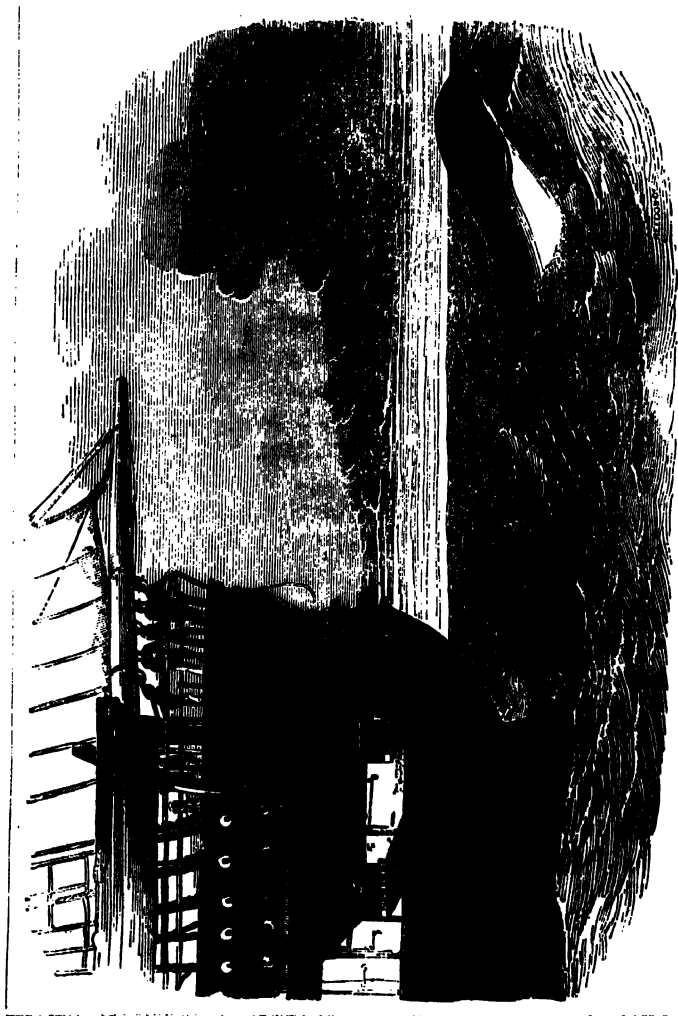


FIG. 20.—THE "SEA SERPENT" PASSING UNDER THE QUARTER OF H.M.S. *Dredalus*.

certified his approbation, were published in the *Illustrated London News* on the 28th of October, 1848. I am kindly permitted by the proprietors of that journal to reproduce two of them, reduced in size to suit these pages—one showing the relative positions of the “serpent” and the ship when the former was first seen (p. 318), and the other (Fig. 20) representing the animal afterwards passing under the frigate’s quarter. An enlarged drawing of its head was also given, which I have not thought it necessary to copy.

Lieutenant Drummond, the officer of the watch mentioned in Captain M’Quhæ’s report, published his memorandum of the impression made on his mind by the animal at the time of its appearance. It differs somewhat from the captain’s description, and is the more cautious of the two.

“I beg to send you the following extract from my journal. H.M.S. *Dædalus*, August 6, 1848, lat. 25° S., long. $9^{\circ} 37'$ E., St. Helena, 1,015 miles. In the 4 to 6 watch, at about 5 o’clock, we observed a most remarkable fish on our lee-quarter, crossing the stern in a S.W. direction. The appearance of its head, which with the back fin was the only portion of the animal visible, was long, pointed, and flattened at the top, perhaps ten feet in length, the upper jaw projecting considerably; the fin was perhaps 20 feet in the rear of the head, and visible occasionally; the captain also asserted that he saw the tail, or another fin, about the same distance behind it; the upper part of the head and shoulders appeared of a dark brown colour, and beneath the under-jaw a brownish-white. It pursued a steady undeviating course, keeping its head horizontal with the surface of the water, and in rather a raised position, disappearing occasionally beneath a wave for a very brief interval, and not apparently for purposes of respiration. It was going at the rate of perhaps from twelve to fourteen miles an hour, and when nearest was perhaps one hundred yards distant; in fact it gave one quite the idea of a large snake or eel. No one in the ship has ever seen anything similar; so it is at least extraordinary. It was visible to the naked eye for five minutes, and with a glass for perhaps fifteen more. The weather was dark and squally at the time, with

some sea running.—EDGAR DRUMMOND, Lieut. H.M.S. *Dadalus*; Southampton, Oct. 28, 1848.”

Statements so interesting and important, of course, elicited much correspondence and controversy. Mr. J. D. Morris Stirling, a director of the Bergen Museum, wrote to the Secretary of the British Admiralty, Captain Hamilton, R.N., saying that while becalmed in a yacht between Bergen and Sogne, in Norway, he had seen, three years previously, a large fish or reptile of cylindrical form (he would not say “sea serpent”) ruffling the otherwise smooth surface of the fjord. No head was visible. This appears to have been, like the others from the same locality, a large calamary. Mr. Stirling, unaware, doubtless, that Mr. Edward Newman, editor of the *Zoologist*, had previously propounded the same idea, suggested that the supposed serpent might be one of the old marine reptiles, hitherto supposed only to exist in the fossil state. This letter was published in the *Illustrated News* of October 28th, and four days afterwards, November 2nd, a letter signed F. G. S. appeared in the *Times*, in which the same idea was mooted, and the opinion expressed that it might be the *Plesiosaurus*. This brought out that great master in physiology, Professor Owen, who in a long, and it is needless to say, most able letter, which was published in the *Times* of the 11th of November, 1848, set forth a series of weighty arguments against belief in the supposed serpent, which cannot properly be abridged, and which I therefore quote *in extenso*, as follows :—

“The sketch (a reduced copy of the animal seen by Captain M’Quhæ, attached to the submerged body of a large seal, showing the long eddy produced by the action of the terminal flippers) will suggest the reply to your query, ‘Whether the monster seen from the *Dadalus* be anything but a saurian?’ If it be the true answer, it destroys the romance

of the incident, and will be anything but acceptable to those who prefer the excitement of the imagination to the satisfaction of the judgment. I am far from insensible to the pleasures of the discovery of a new and rare animal ; but before I can enjoy them, certain conditions—*e.g.*, reasonable proof or evidence of its existence—must be fulfilled. I am also far from undervaluing the information which Captain M'Quhæ has given us of what he saw. When fairly analysed, it lies in a small compass ; but my knowledge of the animal kingdom compels me to draw other conclusions from the phenomena than those which the gallant captain seems to have jumped at. He evidently saw a large animal moving rapidly through the water, very different from anything he had before witnessed—neither a whale, a grampus a great shark, an alligator, nor any of the larger surface-swimming creatures which are fallen in with in ordinary voyages. He writes :— 'On our attention being called to the object, it was discovered to be an enormous serpent' (read 'animal'), 'with the head and shoulders kept about four feet constantly above the surface of the sea. The diameter of the serpent' (animal) 'was about fifteen or sixteen inches, behind the head ; its colour a dark brown, with yellowish white about the throat. No fins were seen' (the captain says there were none ; but, from his own account, he did not see enough of the animal to prove his negative). 'Something like the mane of a horse, or rather a bunch of sea-weed, washed about its back.' So much of the body as was seen was not used in propelling the animal through the water, either by vertical or horizontal undulation. A calculation of its length was made under a strong preconception of the nature of the beast. The head, *e.g.*, is stated to be 'without any doubt that of a snake' ; and yet a snake would be the last species to which a naturalist, conversant with the forms and characters of the heads of animals, would refer such a head as that of which Captain M'Quhæ has transmitted a drawing to the Admiralty, and which he certifies to have been accurately copied in the *Illustrated London News* for October the 28th, 1848, p. 265. Your Lordship will observe that no sooner was the captain's attention called to the object than it was discovered to be an enormous serpent, and yet the closest inspection of as much of the body as was visible *à fleur d'eau* failed to detect any undulations of the body, although such actions constitute the very character which would distinguish a serpent, or serpentiform swimmer, from any other marine species. The foregone conclusion, therefore, of the beast's being a sea serpent, notwithstanding its capacious vaulted cranium, and stiff inflexible trunk, must be kept in mind in estimating the value of the

approximation made to the total length of the animal as (at the very least) sixty feet. This is the only part of the description, however, which seems to me to be so uncertain as to be inadmissible in an attempt to arrive at a right conclusion as to the nature of the animal. The more certain characters of the animal are these : Head with a convex, moderately capacious cranium, short obtuse muzzle, gape of the mouth not extending further than to beneath the eye, which is rather small, round, filling closely the palpebral aperture ; colour, dark brown above, yellowish white beneath, surface smooth, without scales, scutes, or other conspicuous modifications of the hard and naked cuticle. And the captain says, ' Had it been a man of my acquaintance, I should have easily recognised his features with my naked eye.' Nostrils not mentioned, but indicated in the drawing by a crescentic mark at the end of the nose or muzzle. All these are the characters of the head of a warm-blooded mammal, none of them those of a cold-blooded reptile or fish. Body long, dark brown, not undulating, without dorsal or other apparent fins, but something like the mane of a horse, or rather a bunch of seaweed, washed about its back. The character of the integuments would be a most important one to the zoologist in the determination of the class to which the above defined creature belonged. If an opinion can be deduced as to the integuments from the above indication, it is that the species had hair, which, if it was too short and close to be distinguished on the head, was visible where it usually is the longest, on the middle line of the shoulders or advanced part of the back, where it was not stiff and upright, like the rays of a fin, but washed about. Guided by the above interpretation of the mane of a horse or a bunch of seaweed, the animal was not a cetaceous mammal, but rather a great sea seal. But what seal of large size, or indeed of any size, would be encountered in latitude $24^{\circ} 44'$ south, and longitude $9^{\circ} 22'$ east, viz., about 300 miles from the western shore of the southern end of Africa ? The most likely species to be there met are the largest of the seal tribe, *e.g.*, Anson's sea-lion, or that known to the southern whalers by the name of the 'sea-elephant,' the *Phoca proboscidea*, which attains the length of from twenty to thirty feet. These great seals abound in certain of the islands of the southern and antarctic seas, from which an individual is occasionally floated off upon an iceberg. The sea-lion exhibited in London last spring, which was a young individual of the *Phoca proboscidea*, was actually captured in that predicament, having been carried by the currents that set northward towards the Cape, where its temporary resting-place was rapidly melting away. When a large individual of the *Phoca pro-*

boscidea, or *Phoca leonina*, is thus borne off to a distance from its native shore, it is compelled to return for rest to its floating abode, after it has made its daily excursion in quest of fishes or squids that constitute its food. It is thus brought by the iceberg into the latitude of the Cape, and perhaps further north, before the berg has melted away. Then the poor seal is compelled to swim as long as strength endures; and in such a predicament I imagine the creature was that Mr. Sartoris saw rapidly approaching the *Dædalus* from before the beam, scanning, probably, its capabilities as a resting-place as it paddled its long stiff body past the ship. In doing so it would raise a head of the form and colour described and delineated by Captain M'Quhæ, supported on a neck also of the diameter given, the thick neck passing into an inflexible trunk, the longer and coarser hair on the upper part of which would give rise to the idea, especially if the species were the *Phoca leonina* explained by the similes above cited. The organs of locomotion would be out of sight. The pectoral fins being set very low down, as in my sketch, the chief impelling force would be the action of the deeper immersed terminal fins and tail, which would create a long eddy readily mistakable by one looking at the strange phenomena, with a sea serpent in his mind's eye, for an indefinite prolongation of the body. It is very probable that not one on board the *Dædalus* ever before beheld a gigantic seal freely swimming in the open ocean. Entering unexpectedly from that vast and commonly blank waste of waters, it would be a strange and exciting spectacle, and might well be interpreted as a marvel; but the creative power of the human mind appears to be really very limited, and on all the occasions where the true source of the 'great unknown' has been detected—whether it has proved to be a file of sportive porpoises, or a pair of gigantic sharks—old P'ontoppidan's sea serpent with the mane has uniformly suggested itself as the representative of the portent until the mystery has been unravelled.

"The vertebræ of the sea-serpent described and delineated in the 'Wernerian Transactions,' vol. i., and sworn to by the fishermen who saw it off the Isle of Stronsa (one of the Orkneys) in 1808, two of which vertebræ are in the museum of the College of Surgeons, are certainly those of a great shark of the genus *Selache*, and are not distinguishable from those of the species called basking-shark, of which individuals from thirty feet to thirty-five feet in length have been from time to time captured or stranded on our coasts.

"I have no unmet confidence in the exactitude of my interpretation of the phenomena witnessed by the captain and others of the *Dædalus*.

I am too sensible of the inadequacy of the characters which the opportunity of a rapidly passing animal 'in a long ocean swell' enabled them to note for the determination of its species or genus. Giving due credence to the most probably accurate elements of their description, they do little more than guide the zoologist to the class which in the present instance is not that of the serpent or the saurian ; but I am usually asked after each endeavour to explain Captain M'Quhæ's sea serpent, 'Why should there not be a great sea serpent?'—often, too, in a tone which seems to imply, 'Do you think, then, there are no more marvels in the deep than are dreamt of in your philosophy?' And, freely conceding that point, I have felt bound to give a reason for scepticism as well as faith. If a gigantic sea serpent actually exists, the species must of course have been perpetuated through successive generations, from its first creation and introduction into the seas of this planet. Conceive, then, the number of individuals that must have lived and died, and have left their remains to attest the actuality of the species during the enormous lapse of time from its beginning to the 6th of August last. Now a serpent, being an air-breathing animal, with long vesicular and receptacular lungs, dives with an effort, and commonly floats when dead ; and so would the sea serpent until decomposition or accident had opened the tough integuments, and let out the imprisoned gases. Then it would sink, and, if in deep water, be seen no more until the sea rendered up its dead, after the lapse of the æons requisite for the yielding of its place to dry land—a change which has actually revealed to the present generation the old saurian monsters that were entombed at the bottom of the ocean, of the secondary geological periods of our earth's history. During life, the exigencies of the respiration of the great sea serpent would always compel him frequently to the surface ; and, when dead and swollen,

'Prone on the flood, extended long and large,'

he would

'Lie floating many a rood : in bulk as huge,
As whom the fables name of monstrous size
Titanian or earth-born that warred on Jove.'

Such a spectacle, demonstrative of the species if it existed, has not hitherto met the gaze of any of the countless voyagers who have traversed the seas in so many directions. Considering, too, the tides

and currents of the ocean, it seems still more reasonable to suppose that the dead sea serpent would be occasionally cast ashore. However, I do not ask for the entire carcass. The structure of the backbone of the serpent tribe is so peculiar, that a single vertebra would be sufficient to determine the existence of the hypothetical ophidian ; and this will not be deemed an unreasonable request, when it is remembered that the vertebræ are more numerous in serpents than in any other animals. Such large blanché and scattered bones on any sea-shore would be likely to attract even common curiosity, yet there is no vertebra of a serpent larger than the ordinary pythons and boas in any museum in Europe. Few sea-coasts have been more sedulously searched, or by more acute naturalists (witness the labours of Sars and Lovén), than those of Norway. Krakens and sea serpents ought to have been living and dying thereabouts from long before Pontoppidan's time to our day, if all tales were true, yet they have never vouchsafed a single fragment of the skeleton to any Scandinavian collector, whilst the great denizens of those seas have been by no means so chary. No museums, in fact, are so rich in skeletons, skulls, bones, and teeth of the numerous kinds of whales, cachalots, grampuses, walruscs, sea-unicorns, seals, &c., as those of Denmark, Norway, and Sweden, but of any large marine nondescript or indeterminate monster they cannot show a trace.

"I have inquired repeatedly whether the natural history collections of Boston, Philadelphia, or other cities of the United States, might possess any unusually large ophidian vertebræ, or any of such peculiar form as to indicate some large and unknown marine animal ; but they have received no such specimens.

"The frequency with which the sea serpent has been supposed to have appeared near the shores and harbours of the United States has led to its being specified as the ' American sea serpent,' yet, out of the two hundred vertebræ of every individual that should have lived and died in the Atlantic since the creation of the species, not one has yet been picked up on the shores of America. The diminutive snake, less than a yard in length, killed upon the sea-shore, ' apparently beaten to death ' by some labouring people of Cape Ann, United States (see the 8vo. pamphlet, 1817, Boston, p. 38), and figured in the *Illustrated London News*, October the 28th, 1848, from the original American memoir, by no means satisfied the conditions of the problem. Neither does the *Saccopharynx* of Mitchell, nor the *Ophiognathus* of Harwood—the one four and a half feet, the other six feet long. Both are surpassed by some of the congers of our own coast, and, like other

murœnoid fishes, and the known sea-snake (*Hydrophis*), swims by undulatory movements of the body. . . .

"The fossil skull and vertebræ which were exhibited by Mr. Koch in New York and Boston as those of the great sea serpent, and which are now in Berlin, belonged to different individuals of a species which I had previously proved to be an extinct whale, a determination which has subsequently been confirmed by Professors Müller and Agassiz. Mr. Dixon, of Worthing, has discovered many fossil vertebræ in the Eocene tertiary clay at Bracklesham, which belong to a large species of an extinct genus of serpent (*Palæophis*), founded on similar vertebræ from the same formation in the Isle of Sheppy. The largest of these ancient British snakes was twenty feet in length, but there is no evidence that they were marine. The sea-saurians of the secondary periods of geology have been replaced in the tertiary and actual seas by marine mammals. No remains of *Cetacea* have been found in lias or oolite, and no remains of *Plesiosaur*, or *Ichthyosaur*, or any other secondary reptile, have been found in Eocene or later tertiary deposits, or recent, on the actual sea-shores; and that the old air-breathing saurians floated when they died has been shown in the 'Geological Transactions' (vol. v., Second Series, p. 512). The inference that may reasonably be drawn from no recent carcass or fragment of such having ever been discovered is strengthened by the corresponding absence of any trace of their remains in the tertiary beds.

"Now, on weighing the question whether creatures meriting the name of 'great sea serpent' do exist, or whether any of the gigantic marine saurians of the secondary deposits may have continued to live up to the present time, it seems to me less probable that no part of the carcass of such reptiles should have ever been discovered in a recent or unfossilized state, than that men should have been deceived by a cursory view of a partly submerged and rapidly moving animal, which might only be strange to themselves. In other words, I regard the negative evidence from the utter absence of any of the recent remains of great sea serpents, krakens, or *Enaliosauria*, as stronger against their actual existence than the positive statements which have hitherto weighed with the public mind in favour of their existence. A larger body of evidence from eye-witnesses might be got together in proof of ghosts than of the sea serpent."

The reasoning of the most eminent of living physiologists of course had its influence on those who could best appreciate it; but, as it went against the current of popular

opinion, it met with little favour from the public, and has been slurred over much too superciliously by some subsequent writers. It was generally felt, however, that, although the head of the animal, as shown in the enlarged drawing, was wonderfully seal-like, Professor Owen's suggested explanation, that it might have been a great seal, such as the leonine seal, or the sea-elephant, was unsatisfactory and untenable.

Captain M'Quhæ's reply was promptly given in the *Times* of the 21st of November, 1848, as follows :—

“ Professor Owen correctly states that I evidently saw a large creature moving rapidly through the water very different from anything I had before witnessed, neither a whale, a grampus, a great shark, an alligator, nor any of the larger surface-swimming creatures fallen in with in ordinary voyages. I now assert—neither was it a common seal nor a sea-elephant, its great length and its totally differing physiognomy precluding the possibility of its being a ‘*Phoca*’ of any species. The head was flat, and not a ‘capacious vaulted cranium ;’ nor had it a stiff, inflexible trunk—a conclusion at which Professor Owen has jumped, most certainly not justified by the simple statement, that no portion of the sixty feet seen by us was used in propelling it through the water either by vertical or horizontal undulation.

“ It is also assumed that the ‘calculation of its length was made under a strong preconception of the nature of the beast ;’ another conclusion quite contrary to the fact. It was not until after the great length was developed by its nearest approach to the ship, and until after that most important point had been duly considered and debated, as well as such could be in the brief space of time allowed for so doing, that it was pronounced to be a serpent by all who saw it, and who are too well accustomed to judge of lengths and breadths of objects in the sea to mistake a real substance and an actual living body, coolly and dispassionately contemplated, at so short a distance, too, for the ‘eddy caused by the action of the deeper immersed fins and tail of a rapidly moving gigantic seal raising its head above the surface of the water,’ as Professor Owen imagines, in quest of its lost iceberg.

“ The creative powers of the human mind may be very limited. On this occasion they were not called into requisition ; my purpose and desire throughout being to furnish eminent naturalists, such as the

learned Professor, with accurate facts, and not with exaggerated representations, nor with what could by any possibility proceed from optical illusion ; and I beg to assure him that old Pontoppidan having clothed his sea serpent with a mane could not have suggested the idea of ornamenting the creature seen from the *Dædalus* with a similar appendage, for the simple reason that I had never seen his account, or even heard of his sea serpent, until my arrival in London. Some other solution must therefore be found for the very remarkable coincidence between us in that particular, in order to unravel the mystery.

“ Finally, I deny the existence of excitement or the possibility of optical illusion. I adhere to the statements, as to form, colour, and dimensions, contained in my official report to the Admiralty, and I leave them as data whereupon the learned and scientific may exercise the ‘ pleasures of imagination ’ until some more fortunate opportunity shall occur of making a closer acquaintance with the ‘ great unknown ’ —in the present instance most assuredly no ghost.

“ P. M'QUHÆ, late Captain of H.M.S. *Dædalus*.

Of course neither Professor Owen, nor any one else, doubted the veracity or *bona fides* of the captain and officers of one of Her Majesty's ships ; and their testimony was the more important because it was that of men accustomed to the sights of the sea. Their practised eyes would, probably, be able to detect the true character of anything met with afloat, even if only partially seen, as intuitively as the Red Indian reads the signs of the forest or the trail ; and therefore they were not likely to be deceived by any of the objects with which sailors are familiar. They would not be deluded by seals, porpoises, trunks of trees, or Brobdingnagian stems of algæ ; but there was one animal with which they were not familiar, of the existence of which they were unaware, and which, as I have said, at that date was generally believed to be as unreal as the sea serpent itself—namely, the great calamary, the elongated form of which has certainly in some other instances been mistaken for that of a sea-snake. One of these seen

swimming in the manner I have described, and endeavoured to portray (p. 402), would fulfil the description given by Lieutenant Drummond, and would in a great measure account for the appearances reported by Captain M'Quhæ. "*The head long, pointed and flat on the top,*" accords with the pointed extremity and caudal fin of the squid. "*Head kept horizontal with the surface of the water, and in rather a raised position, disappearing occasionally beneath a wave for a very brief interval, and not apparently for purposes of respiration.*" A perfect description of the position and action of a squid swimming. "*No portion of it perceptibly used in propelling it through the water, either by vertical or horizontal undulations.*" The mode of propulsion of a squid—the outpouring stream of water from its locomotor tube—would be unseen and unsuspected, because submerged. Its effect, the swirl in its wake, would suggest a prolongation of the creature's body. The numerous arms trailing astern at the surface of the water would give the appearance of a mane. I think it not impossible that if the officers of the *Dædalus* had been acquainted with this great sea-creature the impression on their mind's eye would not have taken the form of a serpent. I offer this, with much diffidence, as a suggestion arising from recent discoveries; and by no means insist on its acceptance; for Captain M'Quhæ, who had a very close view of the animal, distinctly says that "the head was, without any doubt, that of a serpent," and one of his officers subsequently declared that the eye, the mouth, the nostril, the colour, and the form were all most distinctly visible.

In a letter addressed to the Editor of the *Bombay Times*, and dated "Kamptee, January 3rd, 1849," Mr. R. Davidson, Superintending Surgeon, Nagpore Subsidiary Force, describes a great sea animal seen by him whilst on board

the ship *Royal Saxon*, on a voyage to India, in 1829. The features of this incident are consistent with his having seen one of the, then unknown, great calamaries.

Dr. Scott, of Exeter, sent to the Editor of the *Zoologist* (p. 2459), an extract from the memorandum-book of Lieutenant Sandford, R.N., written about the year 1820, when he was in command of the merchant ship *Lady Combermere*. In it he mentions his having met with, in lat. 46, long. 3 (Bay of Biscay), an animal unknown to him, an immense body on the surface of the water, spouting, not unlike the blowing of a whale, and the raising up of a triangular extremity, and subsequently of a head and neck erected six feet above the surface of the water. This was evidently a great squid seen under circumstances similar to those described by Hans Egede (p. 393).

In the *Sun* Newspaper of July 9th, 1849, was published the following statement of Captain Herriman, of the ship *Brazilian*:

“On the morning of the 24th February, the ship being becalmed in lat. 26° S., long. 8° E. (about forty miles from the place where Captain M'Quhæ is said to have seen the serpent), the captain perceived something right astern, stretched along the water to a length of twenty-five or thirty feet, and perceptibly moving from the ship, with a steady sinuous motion. The head, which seemed to be lifted several feet above the water, had something resembling a mane running down to the floating portion, and within about six feet of the tail. Of course Captain Herriman, Mr. Long, his chief officer, and the passengers who saw this, came to the conclusion that it must be the sea-serpent. As the *Brazilian* was making no headway, to bring all doubts to an issue, the captain had a boat lowered, and himself standing in the bow, armed with a harpoon, approached the monster. It was found to be an immense piece of sea-weed, drifting with the current, which sets constantly to the westward in this latitude, and which, with the swell left by the subsidence of a previous gale, gave it the sinuous snake-like motion.”

Captain Harrington, of the ship *Castilian*, reported in the *Times* of February 5th, 1858, that :

"On the 12th of December, 1857, N.E. end of St. Helena distant ten miles, he and his officers were startled by the sight of a huge marine animal which reared its head out of the water within twenty yards of the ship. The head was shaped like a long nun-buoy,* and they supposed it to have been seven or eight feet in diameter in the largest part, with a kind of scroll or tuft of loose skin, encircling it about two feet from the top. The water was discoloured for several hundred feet from its head, so much so that on its first appearance my impression was that the ship was in broken water."

Evidently, again, a large calamary raising its caudal extremity and fin above the surface, and discolouring the water by discharging its ink.

This was immediately followed by a letter from Captain Frederick Smith, of the ship *Pekin*, who stated that :

"On December 28th, 1848, being then in lat. 26° S., long. 6° E. (about half-way between the Cape and St. Helena), he saw a very extraordinary-looking thing in the water, of considerable length. With the telescope, he could plainly discern a huge head and neck, covered with a shaggy-looking kind of mane, which it kept lifting at intervals out of water. This was seen by all hands, and was declared to be the great sea serpent. A boat was lowered ; a line was made fast to the "snake," and it was towed alongside and hoisted on board. It was a piece of gigantic sea-weed, twenty feet long, and completely covered with snaky-looking barnacles. So like a huge living monster did this appear, that had circumstances prevented my sending a boat to it, I should certainly have believed I had seen the great sea serpent."

In September, 1872, Mr. Frank Buckland published, in *Land and Water*, an account by the late Duke of Marlborough, of a "sea serpent" having been seen several times within a few days, in Loch Hourn, Scotland. A sketch of it was given which almost exactly accorded with that of

* See illustration, p. 393.

Pontoppidan's sea-serpent, namely, seven hunches or protuberances like so many porpoises swimming in line, preceded by a head and neck raised slightly out of water. Many other accounts have been published of the appearance of serpent-like sea monsters, but I have only space for two or three more of the most remarkable of them.

On the 10th of January, 1877, the following affidavit was made before Mr. Raffles, magistrate, at Liverpool :

"We, the undersigned officers and crew of the barque *Pauline* (of London), of Liverpool, in the county of Lancaster, in the United Kingdom of Great Britain and Ireland, do solemnly and sincerely declare that, on July 8, 1875, in lat. $5^{\circ} 13'$ S., long. 35° W., we observed three large sperm whales, and one of them was gripped round the body with two turns of what appeared to be a huge serpent. The head and tail appeared to have a length beyond the coils of about thirty feet, and its girth eight feet or nine feet. The serpent whirled its victim round and round for about fifteen minutes, and then suddenly dragged the whale to the bottom, head first.

"GEO. DREVAR, Master ; HORATIO THOMPSON, JOHN HENDERSON LANDELLS, OWEN BAKER, and WILLIAM LEWARN.

"Again, on July 13, a similar serpent was seen, about two hundred yards off, shooting itself along the surface, head and neck being out of the water several feet. This was seen only by the captain and one ordinary seaman.

"GEORGE DREVAR, Master.

"A few moments after it was seen some 60 feet elevated perpendicularly in the air by the chief officer and the following seaman :—Horatio Thompson, Owen Baker, Wm. Lewarn. And we make this solemn declaration, conscientiously believing the same to be true."

In the *Illustrated London News*, of November 20th, 1875, there had previously appeared a letter from the Rev. E. L. Penny, Chaplain to H.M.S. *London*, at Zanzibar, describing this occurrence and also the representation of a sketch (which I am kindly permitted to reproduce here), drawn by



FIG. 21.—THE “SEA SERPENT” AND SPERM WHALE AS SEEN FROM THE *Pauline*.

him from the descriptions given by the captain and crew of the *Pauline*. "The whale," he said, "should have been placed deeper in the water, but he would then have been unable to depict so clearly the manner in which the animal was attacked." He adds that, "Captain Drevar is a singularly able and observant man, and those of the crew and officers with whom he conversed were singularly intelligent ; nor did any of their descriptions vary from one another in the least : there were no discrepancies." The event took place whilst their vessel was on her way from Shields to Zanzibar, with a cargo of coals, for the use of H.M.S. *London*, then the guardship on that station.

It is impossible to doubt for a moment the genuineness of the statement made by Captain Drevar and his crew, or their honest desire to describe faithfully that which they believed they had seen ; but the height to which the snake is said to have upreared itself is evidently greatly exaggerated ; for it is impossible that any serpent could "elevate its body some sixty feet perpendicularly in the air"—nearly one-third of the height of the Monument of the Great Fire of London. I have no desire to force this narrative of the master and crew of the *Pauline* into conformity with any preconceived idea. They may have seen a veritable sea serpent ; or, as has been suggested, they may have witnessed the amours of two whales, and have seen the great creatures rolling over and over that they might breathe alternately by the blow-hole of each coming to the surface of the water ; or more probably, the supposed coils of the snake may have been the arms of a great calamary, cast over and around the huge cetacean. The other two appearances—1st, the animal seen shooting itself along the surface with head and neck raised" (p. 402), and second, the elevation of the body to a considerable height, as in Egede's sea

monster, (p. 393),—would certainly accord with this last hypothesis. Captain Drevar, however, adheres firmly to his original theory, and in a communication which I have recently received from him he writes :—

“You may rely upon my report as strictly true, and in no way exaggerated. I called the second officer out of his bed to witness the conflict, and he remarked at the time that had the occurrence been further off he would have concluded that it was a sword-fish and a thrasher fighting a whale, which he thought he saw on his first voyage to sea. Several shipmasters told me that they had seen the same conflict near the locality that I saw it, but had not been close enough to see the coils ; they thought it was two separate fish fighting the whale, but were satisfied that it might have been the head and tail portion of a huge serpent about the whale.”

On the 28th of January, 1879, a “sea serpent” was seen from the s.s. *City of Baltimore* (Fig. 22, next page), in the Gulf of Aden, by Major H. W. J. Senior, of the Bengal Staff Corps. The narrator “observed a long, black object darting rapidly in and out of the water, and advancing nearer to the vessel. The shape of the head was not unlike pictures of the dragon he had often seen, with a bull-dog expression of the forehead and eyebrows. When the monster had drawn its head sufficiently out of the water, it let its body drop, as it were a log of wood, prior to darting forward under the water. This motion caused a splash of about fifteen feet in length on either side of the neck much in the ‘shape of a pair of wings.’” This last particular of its appearance, as well as its movements, suggest a great calamary ; but, as one with “a bull-dog expression of eyebrow, visible at 500 yards distance,” does not come within my ken, I will not claim it as such.

In June 1877 Commander Pearson reported to the Admiralty, that on the 2nd of that month, he and other officers of the Royal Yacht *Osborne*, had seen, off Cape

Vito, Sicily, a large marine animal, of which the following account and sketches were furnished by Lieutenant Haynes,

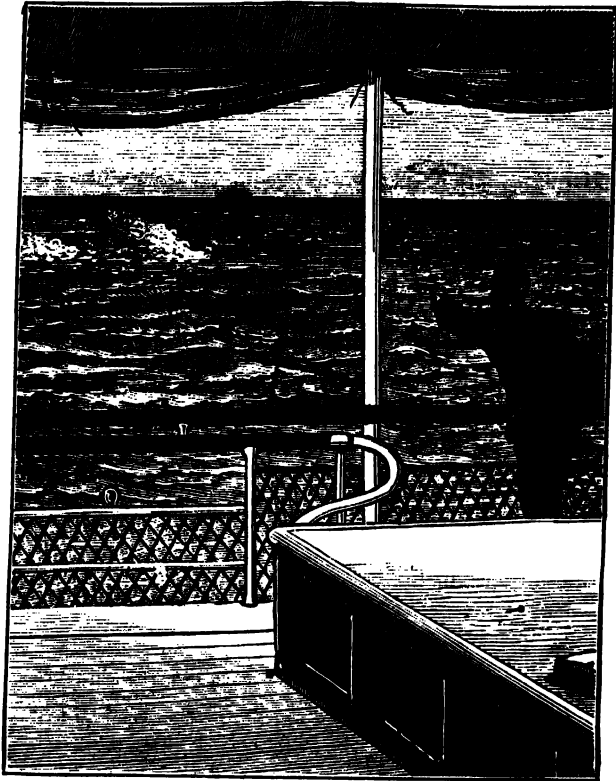


FIG. 22.—THE "SEA SERPENT" AS SEEN FROM THE 'CITY OF BALTIMORE.'

and were confirmed by Commander Pearson, Mr. Douglas Haynes, Mr. Forsyth, and Mr. Moore, engineer.

Lieutenant Haynes, writes, under date, "Royal Yacht *Osborne*, Gibraltar, June 6 :"

"On the evening of that day, the sea being perfectly smooth, my attention was first called by seeing a ridge of fins above the surface of the water, extending about thirty feet, and varying from five to six

feet in height. On inspecting it by means of a telescope, at about one and a-half cables' distance, I distinctly saw a head, two flappers

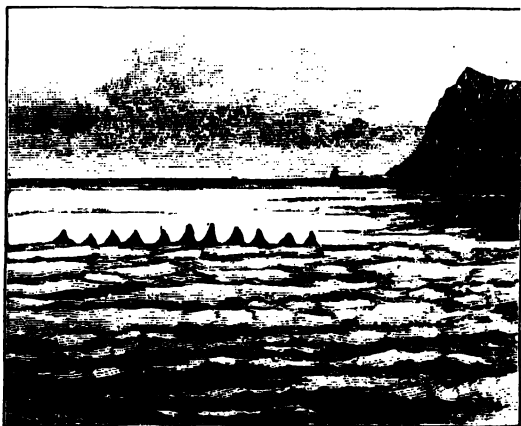


FIG. 23.—THE "SEA SERPENT" AS SEEN FROM H.M. YACHT *Osborne*.
PHASE I.

and about thirty feet of an animal's shoulder. The head, as nearly as I could judge, was about six feet thick, the neck narrower, about four



FIG. 24.—THE "SEA SERPENT" AS SEEN FROM H.M. YACHT *Osborne*.
PHASE 2.

to five feet, the shoulder about fifteen feet across, and the flappers each about fifteen feet in length. The movements of the flappers

were those of a turtle, and the animal resembled a huge seal, the resemblance being strongest about the back of the head. I could not see the length of the head, but from its crown or top to just below the shoulder (where it became immersed), I should reckon about fifty feet. The tail end I did not see, being under water, unless the ridge of fins to which my attention was first attracted, and which had disappeared by the time I got a telescope, were really the continuation of the shoulder to the end of the object's body. The animal's head was not always above water, but was thrown upwards, remaining above for a few seconds at a time, and then disappearing. There was an entire absence of 'blowing,' or 'spouting.' I herewith beg to enclose a rough sketch, showing the view of the 'ridge of fins,' and also of the animal in the act of propelling itself by its two fins."

From this description, and the drawings by which it was accompanied, it seemed impossible to identify the appearance with that of any one animal yet known. The ridge of dorsal fins might, possibly, as was suggested by Mr. Frank Buckland, belong to four basking sharks, swimming in line, in close order; but the combination of them with long flippers, and the turtle-like mode of swimming, formed a zoological enigma which, when the first edition of this book was written, I was unable to solve. Soon after its publication, however, I received from an officer of H.M.S. *Monarch* a communication which throws light on this incident, and, I have no doubt, furnishes the true explanation of it. He wrote as follows:—

"H.M.S. *Monarch* sailed from Gibraltar for Spithead on the 6th of June, 1877, and whilst steaming slowly along the Portuguese coast those on board witnessed a very unusual spectacle, namely, a number of (from ten to twelve) enormous fishes, apparently whales, swimming on the surface of the calm summer sea, generally in single file and close order, marching and counter-marching with the utmost regularity, but, now and then, breaking into disorder and confusion. The explanation which occurred to me was that they were 'black-fish,' or whales of some other species, swimming in the track of, and in pursuit of, a single female of the same kind. Little was thought of this occurrence, and it would doubtless soon have been forgotten, but that on arriving

at Portsmouth a week later we were much astonished and amused by seeing in the *Times* a sensational description of the sea serpent as seen by the officers of the Royal yacht *Osborne* at the same place only a few hours before we passed it. The conclusion is obvious."

We have only to place somewhat further apart the eleven tips of the fins shown in a row in Fig. 23, to transform the picture into a fairly correct representation of the dorsal fins of so many whales swimming in line, as seen from the *Monarch*. Allowing for similar inaccuracy of drawing in Fig. 24, the probability of this is borne out by the appearance therein depicted, as well as by the known habits of some of the smaller whales. (See p. 388.)

I know, from my own experience, how easily one may be deceived by the movements of some of these smaller whales, and by the appearance of a "ridge of dorsal fins," as seen from the Royal yacht *Osborne*. No one has been more positive, more sincere, or more mistaken than myself in his belief that he has seen a sea serpent. The circumstances attending the occurrence referred to were described by me in a letter which I addressed to the Editor of the *Brighton Gazette*, whilst the spectacle of the supposed sea monster was fresh in my mind. It was dated February 16, 1857, and was signed "A Brighton Visitor." I here append a copy of it with all its faults:—

"I have to tell you that which many, perhaps most, of your readers may be disposed to treat with ridicule; but I pledge my word that the following statement is strictly true. A sea serpent passed Brighton this morning at about twenty minutes past eight. I was walking along the beach below the terrace at Kemp Town, and as I approached the bathing machines which stand there (the last towards Rottingdean) some boys who were playing about called out 'A sea-snake! A sea-snake!' Supposing that they had probably found an eel upon the beach, I walked on, and took no notice, but as their continued exclamations evinced considerable excitement, I was induced to look in the direction to which they pointed. Coming from the westward, and

about a quarter of a mile from the shore, I saw what I at first thought was a very long galley, very low in the water ; but as it came towards and passed in front of us I saw it was that which the boys had pronounced it to be—a veritable sea monster. It was swimming on the surface, against the tide, at the rate of from twenty-five to thirty miles an hour, and had exactly the appearance represented in one of the illustrated newspapers a few months since. I should say that about forty or fifty feet of it was visible, and I counted seven dorsal fins, if such they were, standing up from its back. It continued in view for six or seven minutes, and by the end of that time had got so far on its course to the eastward that the eye could no longer follow it. A small boat was about a mile and a half outside of it, and those on board may have seen it also, for I observed that shortly after it had passed the boat's head was turned towards the shore. I hope that although it was rather early in the morning my account of it may be confirmed ; but whether it be or not, the fact remains the same. There was no possibility of mistake. The sun was shining brilliantly, the sea was smooth, and the creature was, as I have before said, not more than a quarter of a mile from the beach. I took the address of the boy who first saw it, which with my card I enclose ; but I decline to allow my name to be published, for if the assertions of the officers and crew of one of Her Majesty's frigates were considered unworthy of credit, or at any rate explained away, I can hardly expect that mine will meet with greater respect."

The above description, written twenty-seven years ago, conveys clearly enough the impression made upon my mind at the time, but it is characterised by an unwise impetuosity of assertion, and an unwarranted assurance of infallibility. I hope that, with greater experience, I should write with less positiveness and more caution now. For, by the irony of fate, I, who was so indignant by anticipation at the very thought of a suggestion of inaccuracy, or of the reasonableness of explanation, have had to condemn my own observation as erroneous, and to perceive that others, with equal sincerity of intention, may have been similarly mistaken. "No possibility of mistake," forsooth ! I now know that the erect dorsal fins that I saw belonged to "long-nosed

porpoises," or dolphins, and, by their shape and height, am able to recognise their owners as having been of the species *Delphinus delphis*. My sea serpent was composed of seven of these cetaccans swimming in line, and, as is their wont, maintaining their relative positions so accurately that all the fins appeared to belong to one animal.*

Another curious sea serpent incident has been described since the first edition of this book was published. The *Times* of October 17, 1883, contained the following letter from the Rev. E. Highton, Vicar of Bude, Cornwall :—

"Yesterday afternoon, about 4.30, a remarkable sight was seen from Summerleaze, an open down at Bude, overlooking the sea. I saw a long, low, dark object, about a mile and a half from the shore, skimming along the surface of the sea, the back of the creature being a little above the top of the water. It kept on its course at a rate which I calculated to be about twenty-five miles an hour, never once disappearing entirely the whole time it was in sight. It was watched by several friends who were with me and myself for about ten minutes, and by that time it had passed over a considerable space of water, between four and five miles, I should think. The creature's length was variously guessed by us to be from fifty feet to eighty feet. Just once a larger mass appeared out of the water than at any other time, and then not for more than a couple of seconds. This was at the end, apparently, of the creature, but it scarcely looked like a tail. It seemed more like a curl in some long, thin monster. Can any of your scientific readers suggest what it was? Would a whale swim for several miles in such a regular even course? One scarcely likes to suggest a sea serpent; but if these creatures are really in existence, that would be the best solution of the question.

"October 12th, 1883.

"E. HIGHTON, Vicar of Bude."

Mr. Highton's description of the object seen was so clear and unvarnished, and his freedom from preconceived notions as to its nature was so evident, that his communication deservedly attracted attention. In response to his invita-

* I was unable to record this incident in the first edition of this treatise, as I had temporarily mislaid my memorandum concerning it.

tion of suggestions, I wrote to him on the subject, and the following is a portion of his courteous and unprejudiced reply :—

“ My impression is that the head did not resemble the cuttle figured on p. 78 of your ‘ Sea Monsters Unmasked ’ [see p. 402 of this volume], whether the fins were horizontal or vertical. Of course, it may have been one, for I cannot pretend to say what it was. My first idea, when I first caught sight of it, was that it was a long boat, without any man in it. Then it seemed to be lower in the water as it came nearer, and it looked like a very large log of wood floating on the sea. I soon saw, from the rate it was going, that it could not be that. When it came nearer to us, some dark mass towards the end of it slowly heaved up out of the water and went down again as slowly. It continued on its course quite steadily, and without once disappearing. Its rate of gliding through the water was a very noticeable feature. It reminded me of a rat swimming over a pond, in its apparently noiseless, gliding motion. And I hear from Newquay that some masons at work near the shore say it made them think of a huge rat. It is singular that the same impression struck them and myself. I had mentioned it to friends before I heard their view. A correspondent writing from Newquay (a distance of at least forty miles from Bude) speaks of it as appearing like a huge conger, and going at a great rate. It must have done so, for it was very little more than an hour in going from Bude to Newquay. It is rather strange that it kept so near the coast for so long a distance, for you will observe if you look at the map that it had to pass a decidedly projecting point, Trevoze Head, and thus turn south. Would this be more like the movements of a cuttle? I should certainly say that the two most noticeable things about it were the thinness of the part which appeared above the water (it may have been two feet in diameter), and the great rate at which it was travelling without any apparent commotion in the water. I had no glass, unfortunately, with me. I wish I could give you more definite information. But I thank you very much for your desire to throw light on the object we saw, which has certainly caused a considerable amount of excitement here.”

Amongst the comments in the newspapers on Mr. Highton's report was a letter in the *Times* of the 20th of October, from Admiral Gore-Jones, who wrote :—

“ In reference to a letter which appeared yesterday in the *Times* headed ‘ The Sea Serpent once more,’ perhaps the following story will

THE GREAT SEA SERPENT.

throw some light on what the Rev. Mr. Highton saw, and on sea serpents in general :—In 1848 I was attached to H.M.S. *St. Vincent*, bearing the flag of Sir Charles Napier, and lying at Spithead. One summer evening, about six o'clock, just as the officers were sitting down to dinner, the midshipman of the watch ran into the wardroom and reported that a sea serpent was passing rapidly between the ship and the Isle of Wight (this was after the reported appearance of the *Dædalus* sea serpent). We all got our glasses and went on deck, and there, sure enough, about a mile off, was a large monster, with a head and shaggy mane, about 100 feet long, and tapering towards the tail ; it was going with the tide, and had a rapid, undulating motion. Two or three boats were manned, and some officers got their guns and went in pursuit. We watched them from the ship ; they gradually got close, and guns were raised and levelled at the creature's head ; but just as we thought the sport was about to begin, down went the guns, and from their gestures we saw something very laughable had occurred. On their return we found that the supposed serpent was a long line of soot. Some steamer in the Southampton Waters had evidently swept her dirty flues, and the soot from tubes or flues is always of a very sticky nature, and as it was pitched overboard it went away with the tide, sticking together, and gradually forming into the shape of a long serpent, the wave motion giving it an undulating life-like appearance. In this case, if the boats had not gone we should have all believed we had seen the real sea serpent ; and this 'arrangement in soot' is evidently what Mr. Highton saw. The curl he describes towards the tail end arose from an occasional wave having a little more than ordinary velocity, and carrying its dusky crest for a moment along with it, while a strong tide and fair wind would give considerable velocity. My story will, I think, supply a *raison d'être*, not only for Mr. Highton's sea serpent, but probably for the whole brood.

“W. GORE-JONES, Vice-Admiral.”

The foregoing anecdote is interesting and very instructive, as showing how easily even the observant and practised eyes of naval officers and sailors may be deceived as to the identity of objects seen at sea ; but it certainly does not account for “the whole brood” of supposed sea serpents in general, nor Mr. Highton's in particular. The soot from a steamer's flues, and her cinders shot overboard, leave a long

line in her wake, but not one that will swim from twenty-five to forty miles in an hour, and present the same appearance after travelling that distance.

Amongst the known living objects of the sea met with near our coasts I can only suggest three, the appearance of which at a little distance would accord with that witnessed by Mr. Highton, viz., a great calamary ; one of the whales, or a flight of ducks. It might have been either of these ; but I will not presume to say that it was one of them. Possibly, as in the case of the *Osborne*, explanatory information concerning this incident may some day be given.

This brings us face to face with the question : " Is it then so impossible that there may exist some great sea creature, or creatures, with which zoologists are hitherto unacquainted, that it is necessary in every case to regard the authors of such narratives as wilfully untruthful, or mistaken in their observations, if their descriptions are irreconcilable with something already known ? " I, for one, am of the opinion that there is no such impossibility. Calamarics or squids of the ordinary size have, from time immemorial, been amongst the commonest and best known of marine animals in many seas ; but only a few years ago any one who expressed his belief in one formidable enough to capsize a boat, or pull a man out of one, was derided for his credulity, although voyagers had constantly reported that in the Indian seas they were so dreaded that the natives always carried hatchets with them in their canoes, with which to cut off the arms or tentacles of these creatures, if attacked by them. We now know that their existence is no fiction ; for individuals have been captured measuring more than fifty feet, and some are reported to have measured eighty feet, in total length. As marine snakes

some feet in length, and having fin-like tails adapted for swimming, abound over an extensive geographical range, and are frequently met with far at sea, I cannot regard it as impossible that some of these also may attain to an abnormal and colossal development. Dr. Andrew Wilson, who has given much attention to this subject, is of the opinion that "in this huge development of ordinary forms we discover the true and natural law of the production of the giant serpent of the sea. It goes far, at any rate, towards accounting for its supposed appearance. I am convinced, however, that, whilst naturalists have been searching amongst the vertebrata for a solution of the problem, the great unknown, and therefore unrecognized calamaries by their elongated, cylindrical bodies and peculiar mode of swimming, have played the part of the sea serpent in many a well-authenticated incident. In other cases, such as some of those mentioned by Pontoppidan, the supposed "vertical undulations" of the snake seen out of water have been the burly bodies of so many porpoises swimming in line—the connecting undulations beneath the surface have been supplied by the imagination. The dorsal fins of basking sharks, as figured by Mr. Buckland, or of ribbon-fishes, as suggested by Dr. Andrew Wilson to account for the appearance seen from the *Osborne*, may have furnished a "ridge of fins;" an enormous conger is not an impossibility; a giant turtle may have done duty, with its propelling flippers and broad back; or a marine snake of enormous size may, really, have been seen. But if we accept as accurate the observations recorded (which I certainly do not in all cases, for they are full of errors and mistakes), the difficulty is not entirely met, even by this last admission, for the instances are very few in which a ophidian proper—a true serpent—is indicated. There has

seemed to some writers on this subject to be wanting an animal having a long snake-like neck, a small head and a slender body, and propelling itself by paddles.*

The similarity of such an animal to the *Plesiosaurus* of old was remarkable. That curious compound reptile, which has been compared with "a snake threaded through the body of a turtle, is described by Dean Buckland, in his *Bridgewater Treatise*, as having "the head of a lizard, the teeth of a crocodile, a neck of enormous length resembling the body of a serpent, the ribs of a chameleon, and the paddles of a whale." In the number of its cervical vertebræ (about thirty-three) it surpassed that of the longest-necked bird, the swan.

The form and probable movements of this ancient saurian agree so markedly with some of the accounts given of the 'great sea serpent,' that Mr. Edward Newman advanced the opinion that the closest affinities of the latter would be found to be with the *Enaliosauria*, or marine lizards, whose fossil remains are so abundant in the oolite and the lias. This view has also been taken by other writers, and emphatically by Mr. Gosse. Neither he nor Mr. Newman insist that the "great unknown" must be the *Plesiosaurus* itself. Mr. Gosse says, "I should not look for any species, scarcely even any genus, to be perpetuated from the oolitic period to the present. Admitting the actual continuation of the order *Enaliosauria*, it would be, I think, quite in conformity

* It must be noted, however, that in almost every case, except that of the *Osborne*, the paddles were *supposed*, not *seen*, and were invented to account for an animal of great length progressing at the surface of the water at the rate of twelve to fifteen miles an hour without its being possible to perceive, upon the closest and most attentive inspection, any undulatory movement to which its rapid advance could be ascribed. As the great calamaries were unknown, their mode of swift retrograde motion, by means of an outflowing current of water, was of course unsuspected.

with general analogy to find some salient features of several extinct forms."

The form and habits of the recently-recognized gigantic cuttles account for so many appearances which, without knowledge of them, were inexplicable when Mr. Gosse and Mr. Newman wrote, that I think this theory is not now forced upon us. Mr. Gosse well and clearly sums up the evidence as follows: "Carefully comparing the independent narratives of English witnesses of known character and position, most of them being officers under the Crown, we have a creature possessing the following characteristics: 1st. The general form of a serpent. 2nd. Great length, say above sixty feet. 3rd. Head considered to resemble that of a serpent. 4th. Neck from twelve to sixteen inches in diameter. 5th. Appendages on the head, neck, or back, resembling a crest or mane. (Considerable discrepancy in details.) 6th. Colour dark brown, or green streaked or spotted with white. 7th. Swims at surface of the water with a rapid or slow movement, the head and neck projected and elevated above the surface. 8th. Progression, steady and uniform; the body straight, but capable of being thrown into convolutions. 9th. Spouts in the manner of a whale. 10th. Like a long nun-buoy."

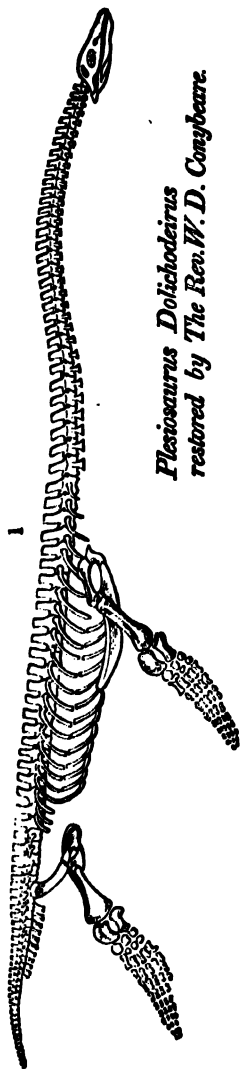


FIG. 25.

He concludes with the question—"To which of the recognized classes of created beings can this huge rover of the ocean be referred?"

I reply: "To the *Cephalopoda*." There is not one of the above judiciously summarized characteristics that is not supplied by the great calamary, and its ascertained habits and peculiar mode of locomotion.

Only a geologist can fully appreciate how enormously the balance of probability is contrary to the supposition that any of the gigantic marine saurians of the secondary deposits should have continued to live up to the present time. And yet I am bound to say, that this does not amount to an absolute impossibility, for the evidence against it is entirely negative. Nor is the conjecture that there may be in existence some congeners of these great reptiles entirely inconsistent with zoological science. Dr. J. E. Gray, late of the British Museum, a strict zoologist, is cited by Mr. Gosse as having long ago expressed his opinion that some undescribed form exists which is intermediate between the tortoises and the serpents.*

Professor Agassiz, too, is adduced by a correspondent of the *Zoologist* (p. 2395), as having said concerning the present existence of the *Enaliosaurian* type that "it would be in precise conformity with analogy that such an animal should

* Dr. Gray wrote in his 'Synopsis of Genera of Reptiles,' in the *Annals of Philosophy*, 1825: "There is every reason to believe from general structure that there exists an affinity between the tortoises and the snakes; but the genus that exactly unites them is at present unknown to European naturalists; which is not astonishing when we consider the immense number of undescribed animals which are daily occurring. If I may be allowed to speculate from the peculiarities of structure which I have observed, I am inclined to think that the union will most probably take place by some newly discovered genera allied to the marine or fluviatile soft-skinned turtles and the marine serpent."



FIG. 26.—THE "SEA SERPENT," ON THE ENALIOSAURIAN HYPOTHESIS.

After Mr. P. H. Gosse, F.R.S.

exist in the American Seas, as he had found numerous instances in which the fossil forms of the Old World were represented by living types in the New."

On this point, Mr. Newman records, in the *Zoologist* (p. 2356), an actual testimony which he considers, "in all respects, the most interesting natural-history fact of the present century." He writes :

"Captain the Hon. George Hope states that when in H.M.S. *Fly*, in the Gulf of California, the sea being perfectly calm and transparent, he saw at the bottom a large marine animal with the head and general figure of the alligator, except that the neck was much longer, and that instead of legs the creature had four large flappers, somewhat like those of turtles, the anterior pair being larger than the posterior ; the creature was distinctly visible, and all its movements could be observed with ease ; it appeared to be pursuing its prey at the bottom of the sea ; its movements were somewhat serpentine, and an appearance of annulations, or ring-like divisions of the body, was distinctly perceptible. Captain Hope made this relation in company, and as a matter of conversation. When I heard it from the gentleman to whom it was narrated, I enquired whether Captain Hope was acquainted with those remarkable fossil animals *Ichthyosauri* and *Plesiosauri*, the supposed forms of which so nearly correspond with what he describes as having seen alive, and I cannot find that he had heard of them ; the alligator being the only animal he mentioned as bearing a partial similarity to the creature in question."

Unfortunately, the estimated dimensions of this creature are not given.

That negative evidence alone is an unsafe basis for argument against the existence of unknown animals, the following illustrations will show :

During the deep-sea dredgings of H.M.S. *Lightning*, *Porcupine*, and *Challenger*, many new species of mollusca, and others which had been supposed to have been extinct ever since the chalk epoch, were brought to light ; and by the deep-sea trawlings of the last-mentioned ship, there have

been brought up from great depths fishes of unknown species, and which could not exist near the surface, owing to the distension and rupture of their air-bladder when removed from the pressure of deep water.

Mr. Gosse mentions that the ship in which he made the voyage to Jamaica was surrounded in the North Atlantic, for seventeen continuous hours by a troop of whales of large size of an undescribed species, which on no other occasion has fallen under scientific observation. Unique specimens of other cetaceans are also recorded.

We have evidence, to which attention has been directed by Mr. A. D. Bartlett, that "even on land there exists at least one of the largest mammals, probably in thousands, of which only one individual has been brought to notice, namely, the hairy-eared, two-horned rhinoceros (*R. lasiotis*), now in the Zoological Gardens, London. It was captured in 1868, at Chittagong, in India, where for years collectors and naturalists have worked and published lists of the animals met with, and yet no knowledge of this great beast was ever before obtained, nor is there any portion of one in any museum. It remains unique."

I arrive, then, at the following conclusions: 1st. That, without straining resemblances, or casting a doubt upon narratives not proved to be erroneous, the various appearances of the supposed "Great Sea Serpent" may now be nearly all accounted for by the forms and habits of known animals; especially if we admit, as proposed by Dr. Andrew Wilson, that some of them, including the marine snakes, may, like the cuttles, attain to an extraordinary size.

2nd. That to assume that naturalists have perfect cognizance of every existing marine animal of large size, would be quite unwarrantable. It appears to me more than probable that many marine animals, unknown to science, and

some of them of gigantic size, may have their ordinary habitat in the great depths of the sea, and only occasionally come to the surface ; and I think it not impossible that amongst them may be marine snakes of greater dimensions than we are aware of, and even a creature having close affinities with the old sea-reptiles whose fossil skeletons tell of their magnitude and abundance in past ages.

It is most desirable that every supposed appearance of the "Great Sea Serpent" shall be faithfully noted and described ; and I hope that no truthful observer will be deterred from reporting such an occurrence by fear of the disbelief of naturalists, or the ridicule of witlings.

PRACTICAL LESSONS
IN THE
GENTLE CRAFT.

BY
J. P. WHEELDON,
LATE ANGLING EDITOR OF 'BELL'S LIFE.'

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PRACTICAL LESSONS

IN THE

GENTLE CRAFT.



I HAVE the honour to submit for your approbation a few remarks based principally upon practical knowledge, and having reference to the pursuit of angling for what are commonly called "the coarse fish" of this country.

This class of sport is, very deservedly, popular in the extreme, and day by day, I think, grows in the public estimation. The reason for such popularity is not difficult to find, inasmuch as in great towns, such as London, or indeed in any manufacturing centre, the man who either inherits or cultivates a taste for angling, becomes a student in a charming and health-giving pastime, not necessarily expensive to one of limited monetary resources, yet one which, followed out faithfully and observantly, is, I believe, the invariable means of developing any latent disposition to good. Coarse fish angling has also another distinction of its own. It is particularly the sport of the poor man. Salmon fishing, with all its gloriously moving incidents by "flood and field," is a branch of English sport nearly entirely confined to the wealthier classes. Trout fishing is almost, if not quite as exclusive. There is hardly a yard

of trout water within hail of any large town but what is at once monopolised, either by its owner, or by some one who can afford to pay a high price for the privilege of fishing it. In the case of the coarse fisher this state of affairs takes an altogether different aspect; because the very poorest amongst the community can, if he so pleases, and thanks to that binding law which is the result of long-continued user, hie him to the banks of such noble rivers as the Thames and the Lea, and there fish to his heart's content. I am not about to tell you that he is certain to obtain sport sufficient to repay him for his trouble and possible outlay. That is a question in these modern days, and amidst the riot and hurly-burly caused by those angler's pests—steam launches—and the greatly increased traffic of the river, which must always remain merged in obscurity, until, at any rate the close of the day. An acute mind will naturally reflect that the same ratio of reasoning applies to all classes of fishing, and I am by no means prepared to gainsay it. In the Thames, however, such a reflection comes home with tenfold force, and it only shows how keenly the love of angling is developed in the bosoms of many men, how patient and long-suffering fishermen are, as a race, and how content with the hope even of small mercies, when throughout the season the great railway stations are crowded every week with whole battalions of the rank and file of the angling army.

It is, however, at the London, Brighton, and South Coast Railway Station, and that at Liverpool Street, on the Great Eastern Line, that the most extraordinary sight in connection with the coarse fishermen of London is to be seen on every Sunday morning.

It may be that mention of the selected day may offend the "unco guid" section of polite society; but it must be

remembered, as a set-off, that nine out of every ten of the great crowd gathered round the Booking-Office window are recruits from the still greater host of workers with bone, muscle, thew and sinew, to whom loss of time during the working hours of the week means not only loss of bread, but perhaps the loss of some small delicacy to a sick and ailing child. Thus it would seem particularly hard to attempt restraint upon such men in the gratification of their simple pleasures, nor is it by any means certain that they do not imbibe far more real good through their vigil by the river's side, than if they had donned the carefully saved suit of go-to-meeting broadcloth, and dozed drowsily and drouthily over a drawling, doctrinal dissertation, delivered by a divine of the "Stiggins" type. Rest assured if there be a sick baby, the little one is rarely forgotten, and smoke-grimed Daddy, all the better and healthier in soul and body for his twelve hours' rest from the roaring forge, gathers her or him, as the case may be, a bonny bundle of wild blossoms which he takes home with him as the top-most layer of the cargo in his roach basket.

The approaches to either of the lungs of the great Wen which I have spoken of, are indeed a wonderful sight. Gathered there are pale-faced weavers from Spitalfields, with flexible delicate fingers, cane-chair workers, with hard and horny hands ; brawny, swart hammermen, and stout-limbed big-muscled strikers, both of them probably from some neighbouring foundry. Then there are dyers and curriers with the stain of their calling set indelibly on their skins, together with workers, perhaps from a white lead factory with that tallowy, unhealthy complexion inseparable from such a life of toil. Amongst these there are a few, but a very few, smartly dressed clerks with their sweethearts, and these probably eye the hundreds of fishermen wonder-

ingly as upon an introduction to a strange development of human nature. Later on, this latter section of the holiday throng will be found tea-drinking in shady Broxbourne arbours, or watching the fisherman with a curiously developed interest as he plys his delicate tackle. Look round carefully through the ranks of thronging piscators, and any one may see for himself that they are all anglers of one stamp. It is curiously strange, but none the less strange than true, that nine out of every ten of the anglers of London are all wedded to the pursuit of roach fishing. Every man there has a long 18-ft. rod in its jean case, and with this is tied up the handle of his landing net. His rod is invariably slung across his shoulder, and dependent from the butt, and resting on his broad back is the well-known basket or box seat without which the true roach fisher never sets out.

It may perhaps be well at this point to consider why it is that the modern rodster is apparently attached so much to this particular branch of the sport. The answer is, that it is at once the prettiest and most skilful branch of angling in the world, as well as that which is most easily attainable; and to see such men at work on the Lea as Hackett, Bates, Da Costa, or my old friend Tom Hughes, whose show of fish at this exhibition is second to none, in their particular style, or Theaker or Bailey upon the Trent, is to see one branch at least of the true poetry and craft of angling.

It will be impossible within the limits of time at my command to enter fully into all the mysterious ramifications attaching to many branches of the silent craft. One or two of them however I must touch upon, and knowing that roach-fishing is the most popular of all branches, I venture to deal with that first.

Now at the outset I may tell you, gentlemen, who may

not, possibly, have seen roach fishermen at work on the Lea, something about the manner in which they set to work. In the first place, I think it might be well to consider the rod, which is usually one of 18 feet in length, built of the very best white Carolina or West Indian cane. The best rods are invariably made as free as possible from burrs and knots, the cane being specially picked for their manufacture. Stiffness and pliability throughout their entire length is one great thing which is always looked to, and yet they have an immense amount of give and take in the very fine, yet short, top joint, and the immediate connecting joint. That is a very essential qualification in a rod devoted to the special branch of angling with which I am dealing. Previously, I think, to the famous match between Woodard, the champion of London, and Bailey, an equally great fisherman on the Trent, there was no such thing as real thorough roach rods made at any time, or at any rate rods made especially for roach-fishing, and specially with regard to the habits of the fish. They were simply bamboo bottom rods, and not half so much attention was given to their manufacture. But upon the occasion of this famous match, which excited an immense amount of interest at the time, a great impetus was given to that particular branch of the craft, and for months and months nothing else was talked about in London angling circles but roach-fishing and fishermen. Directly following this leading affair, match followed match amongst lesser luminaries of the angling world, and presently a maker named Sowerbutts, of Commercial Street, brought out a first class rod for roach-fishing, and he it was perhaps who gained an enormous reputation as being the first man who made roach rods in their present excellent form and finish.

There is no doubt he studied the particular play and style of rod necessary for this kind of fishing. Then he was

followed, and imitated also, by a host of other makers, until in the present day, and amongst such traders as Carter and Sons of St. John Street Road, Alfred of Moorgate Street, and last, but not least, a little maker I have known something about lately, named Gold, of Waterloo Road, and who I think makes as good a class of rod as it is possible to obtain for this particular branch of fishing, there is small appreciable difference to be found in the quality of their manufactured goods. Generally, then, a rod for roach-fishing should be lengthy yet full of equable spring—tapered beautifully from the broad butt, built of the very lightest white pine, to the slender cane and lance-wood top, as light as possible in the hand, with no superfluous weight attached in the shape of rings, or heavy metal fittings, and altogether a perfect weapon suited for a very perfect branch of the art of angling. I have no belief in general all-round rods. A salmon rod should be a salmon rod and nothing else, and a roach rod ought to be equally distinct.

I may now, perhaps, properly discuss the question of roach lines, and I may also at this point premise that a really good and skilful roach fisherman almost invariably uses tight tackle. He seldom or never condescends to the use of running tackle, save, it may be, by operators upon the Trent. There has been a considerable controversy during the last few years in the columns of the 'Fishing Gazette,' and other sporting journals, with regard to the advantages of gut over hair. For my own part I never could see that there was any strikingly great advantage derived from the use of hair in roach-fishing, and particularly when the chances were that one was likely to get hold of a heavy chub or barbel in the same swim—save it might be from the sportsmanlike desire to kill one's fish with the lightest possible tackle. Therefore, I think a

nice round fine gut line is as good a tackle as one could possibly use. Roach-floats are invariably made from either quill or reed, and they are selected as a matter of course with regard to the depth and character of the water which it is intended to fish. Nicely shaped wooden floats are favourites also, but, carrying little shot, they are only suitable for swims of medium depth. There is a considerable amount of difference in the manner in which the roach-float is shotted, as against other floats used for other purposes. For instance, it matters very little if the perch or chub-float wants the completing shot to effect its perfect balance, but the roach-float cannot possibly be shotted too deeply down, so long as the immediate tip of the float, which I may explain is the top of the white quill and the cap, swims steadily and nicely over the surface of the stream. That is the very best character that a roach-float can possibly assume. It should be shotted down to the point, when three or four shot corns more, over and above the weight of the bait itself, would assuredly swamp it.

I will now go to the question of baits. For roach-fishing they are few in number and very simple, and without touching upon the question of pearl barley, wheat, shrimps, wasp grubs, silk weed, or any other of the many various baits which kill at certain times, I think I may say that one of the best kinds of bait one can possibly use, is a paste made of stale crumb of bread just moistened, and worked up in the palm of a cleanly hand. A very excellent paste is likewise made of an arrowroot biscuit, from which the outside brown crust has been scraped off, until the inner and white interior only is left. Slightly moistened with fair water, this biscuit works up into a capital white paste, which is at times especially killing. Gentles, again, during the winter time, are a capital all-round bait, and the same

may be said of the tail of a lob worm, or small red worm, either in summer or winter, when floods have caused a rise in the streams, and probably a course of coloured waters. Ground bait, which is usually a very expensive matter in various other methods of fishing, is in roach-fishing very simple and inexpensive. The roach-fisher seldom uses anything but a stiff paste made of bread and bran. He soaks his bread over night, and in the morning squeezes the surplus water away, and then adds to it a quantity of bran, working it up in his hands, until he gets a stiff paste as tough and hard as putty. He baits his swim with pieces of this ground bait about as large as a pigeon's egg, or a good sized walnut. That is quite sufficient for the purpose of baiting a roach swim. On the Lea they have a practice which I have found wonderfully good at times, when roach are exceedingly shy, and when they will not take a bait under any conditions, and that is this. When these experienced operators have baited their hook with an ordinary piece of paste or with gentles, they take a little of this tough ground bait, and nip it immediately over the two shots which are usually put on the bottom length of hair or gut, about two inches above the hook. When the float is thrown gently up-stream, the extra weight causes it to sink, but the rodster lifts it carefully along until it gradually reaches the point where the roach are supposed to be lying. The whole way it comes down the stream, this little bit of bread and bran keeps flaking small particles off along its downward track. This is especially attractive to roach, and practice has frequently proved that they will then feed a great deal better than they had been doing previously, when the simple bait itself had been floated time after time down the swim. Now, the roach is a particularly quick and active fish in its habits. It follows

the bait down, and I believe sucks it in as it goes down the stream, taking hold of it with the peculiarly shaped prehensile upper lip. That upper lip of the roach is precisely like the hood of a perambulator. I believe those big, aldermanic fellows, sly and wary as courtiers, cautiously protrude their upper lip, and, hunger getting the better of them, suck the bait in. But the instant they get the bait into their mouths, and they detect that there is anything foreign about it, that instant they reject it. That shows the importance of the float being shotted down until the very lowest depth of its floatability has been secured. You see it will hardly bear one corn more shot, and when these artful old roach follow the bait down-stream, when they look at it even, to stretch one's imagination a little, much less touch it, instantly the float gives way, and there is a little sharp dip. Now, the good roach-fisherman is marvellously quick in hooking his fish, and from start to finish it is a bit of finished wrist-action entirely. He fishes with this long 18-foot rod—which I have attempted to describe to you—and it is curious and beautiful to see the accuracy with which a crack roach-fisherman will hook fish after fish with merely a little upward jerk of the wrist. The line is very short ; indeed, from the point of the float to the top of the rod, it is usually not more than a couple of feet in length, and consequently, this short length being kept taut throughout the float's downward journey, the slightest upward stroke is sufficient to hook the wariest old roach, so long as it is done at the proper moment of time. Miss that moment, and one might just as well not strike at all.

There is a considerable difference between the various styles adopted upon the three rivers, viz., the Lea, the Thames, and the Trent. That upon the Trent is called "stret pegging" in some cases, "tight corking" in others,

and is always founded upon the midland fisherman's excellent theory of fine and far off. It is questionable, however, whether this is quite so good as the Lea style. Roach-fishing on the Thames at any rate is practised from a punt by fishing with a long light line and a short rod. The punt angler on the Thames almost invariably uses running tackle, but in the Lea and most other rivers I think the best anglers use that class of tackle which experience tells them is the most useful, viz., a long rod with a tight line, and that I am well assured is the finest and most artistic principle of roach-fishing.

Now, with regard to the rivers in which roach are found. I think the finest roach I ever saw or heard of came respectively from the Avon and Stour, one being a Dorsetshire and the other a Hampshire river. The Lea, in days gone by, was also a famous roach stream, although in later years I think its angling capacities have not been quite so good. There are also excellent roach in the Mole, a beautifully quaint little stream, its banks teeming with thoughtful associations with the works of dead and gone poets, while the Colne also is a charmingly productive stream whose fish are strikingly handsome specimens.

One word now upon swims, and then I will close this branch of freshwater fishing.

It is likely enough to strike even the most unreflective mind, that there should naturally be a great difference between the swims selected for almost any class of fishing during the heats of summer, and those picked out during the rigours of the winter season. Some men there are, however, who never learn. Others, who do, soon gather together the fact that there is a considerable difference in the style of water which should be selected by rodsters at various times of the year. As a matter of fact, roach are ground-feeding fish, seldom

or never taking bait except on the bottom of the river. It does not follow, however, that roach in the great heats of the summer do not take flies and insects on the surface of the river, because they will do so beyond all question. So will they also take baits presented at mid-water, or off the bottom, at times. They affect two different classes of water during the summer and winter. Some of the best roach swims in the more pleasant portion of the year are almost invariably found near large beds of weeds, at sharp swims at the tails of mill streams—not too sharp for the travel of an ordinary roach-float—or where the water runs smartly without too much stream by old camp-shedding. There the roach will easily be found during the summer months. It is very frequently the practice during those months, and particularly during great heat seasons, when it is almost impossible to catch fish on the bottom of the river, to fish for them by means of dipping or daping with the live natural insect. Then there is another very killing method called blow-line fishing. That is effected in this way. The operator is armed with a long, light, pliable rod, to which is attached a line somewhat longer than the rod itself, made of floss silk. The angler has his back to the wind, and having found out where the fish are lying he waits for a breeze. His tackle consists of a little length of the finest possible gut at the end of a long length of floss silk. To the gut link is attached a small hook which he baits with a natural grasshopper or blue-bottle fly. With the rod held aloft, the baited hook in the left hand, he waits for a breeze. Presently it comes and bellies the floss silk line out in a long graceful curve which blows right over the water. He watches his opportunity until it gets directly over where the roach are possibly lying, and then, drops the baited hook gently as a bit of thistle down on the surface. That is a very killing

method of taking roach when they will not by any means take a bait at the bottom of the river. Regard being had to the best time of the year for roach-fishing, the autumn, and better still, the winter months occupy the post of honour. I personally have had some of the very finest takes of roach in the winter months that man ever had in this world, and I remember upon one occasion when fishing in the Hampshire Avon I took 75 lbs. of heavy roach in 5 hours. I took them all with a tight line—not running tackle—and using an 18-foot rod over a very heavy stream of swirling water. I had some of the finest sport you can possibly imagine. There is no time better in the world than the winter time for roach-fishing. On a sharp, crisp morning, when the trees and grass are frosted all over with hoar; when you hear the robin's notes whistling out bright and clear, and the sooty rook's harsh caw sounds less strident, then is the time to go roach-fishing.

I do not say the fish will feed very early in the morning, but when the sun gets up, the hoar begins to melt, and there is a little softness in the ground, then the fish begin to feed, and the deeper the selected swim consistent with a fairly good convenience in fishing it, the better at that period of the year. The fish are in the best condition; they are lusty, plump, and glowing with radiant colour. I know of no class of fish that makes a more thoroughly good and handsome basket as the result of the angler's toil, than a rattling good basket of roach.

BARBEL FISHING.

There is another highly popular branch of sport to which the London angler is deeply attached, and that is barbel-fishing. It is mostly practised on the Thames. I do not say there are no barbel in the Lea, because I know there

are, and plenty of them, but as barbel-fishing is most effectively carried out on the Thames, and is possibly better understood on that river than on any other in the kingdom, I shall confine my remarks chiefly to the practice there.

Now as to the qualities of my friend the barbel. We have heard a great deal lately about the marvellous gameness of the black bass of America, and I have heard my friends Mr. Wilmot and Dr. Honeyman expatiate upon him at vast length, saying that there is no such fish in this world for game qualities. I am perfectly prepared to admit it, but I must insist that the barbel of the Thames is an equally game fish, indeed I doubt very much whether there is any fish which can possibly eclipse my old antagonist the Thames barbel. He is a wonderfully game fish; you can never call him dead until he is absolutely in your landing net. I can tell you, gentlemen, that when I have had a big barbel "hang on," to use a fisherman's slang, in a heavy weir stream, the sport has been comparable to the best fighting salmon I ever hooked in my life or ever saw hooked, considering the relative difference in the tackle used. There is a considerable difference between the style of barbel-fishing on the Trent and on the Thames, and these are the two principal rivers where barbel are fished for in the present day. The Trent fisherman almost invariably fishes with float tackles, the Thames fisherman with a leger. The difference is still greater when you listen to the conditions on which success is said to depend. The Trent fisherman tells you that unless the river is low and exceedingly bright there is no possible chance of catching barbel at all. The Thames fisherman, and I take it upon myself to say he is right, will tell you that you rarely get fish in the Thames unless the water is high and thick. The higher the water, and the

thicker the water is, short of anything like the thickest "pea soup" condition, the better, I think, is your chance of getting barbel. The difference between the two styles can be easily understood, because they are so totally and distinctly opposite. The Trent fisherman fishes with a float, and consequently he wants low and bright water, so that the fish for which he is angling may see the bait and follow it down the stream. The Thames fisherman, knowing perfectly well that the barbel, not only being a gregarious fish swimming in shoals, but also being an essentially ground-feeding fish, feeds his fish up to a certain point, and then fishes for them with tackle which lies at the bottom of the river. I am not prepared to say that the Trent fisherman is not as good a man as it is possible to conceive, but I certainly think that taking the best samples of the two men, and pitting them one against the other upon the two rivers, and each fishing in his own style, that the Thames fisherman will invariably beat the Trent man, because after all that is said and done barbel are barbel all the world over, and their habits are precisely similar.

Now in the selection of swims for barbel in the early part of the summer I should prefer sharps and good scours, because there the fish are lying beyond all question. They are freeing themselves from parasites, cleansing themselves from spawning operations, and there they will occasionally feed, and you will always find them in three or four feet of water. There is no reason why, in such a depth as that, excellent fish should not lie. I have over and over again seen them of eight and ten pounds in such situations equally as well as in deeper water. As the summer progresses and the autumn season comes on, they shift down bit by bit into the lower waters, and get into heavy runs under projecting clay banks or close in to

deep swims protected by camp shedding. I do not know that I can pick out a better sample of such a bank than the one well known to all Thames fishermen, called the "High bank" at Sonning. There the water runs in a very heavy stream indeed. The banks are hollowed and scoured out, presenting harbours of refuge to the fish; and during the autumn period and that of approaching winter, heavy barbel lie under those banks for shelter, and consequently it is a capital place to angle for them.

Now there is an immense difference between the bite of a barbel when he really means business and the reverse. Occasionally it so happens that when a barbel swim has been well baited, and the proper length of time has been allowed for the fish to recover after a heavy dose of baiting, before the work of the angler commences, your barbel, when he does feed, makes so little mistake about it that there is very little trouble to the angler. Then one gets the poetry of angling so far as barbel are concerned; but on the contrary, now and again, they feed in the most curious and perverse manner. In speaking of hook baiting on the Thames, the general practice is as follows: the fisherman takes a worm, dips it into a basin of sand, rolls it up, takes a big white Carlisle hook, puts it in at the head, and threadles that unhappy worm right up the whole shank of the hook. Thus the unfortunate worm is pierced clean through by the hook from end to end, leaving just a little bit of the tail wriggling at the extreme point of the hook. Now that bait being thrown into the stream upon ledger tackle, and when barbel are feeding, they will take it like a shot. Sometimes I think my friend would take a boot-jack. He seizes hold of the bait, and there can be no mistake about the fact of his bite, because he frequently pulls the rod clean down to the water. On the other hand,

he does nothing of the kind. I have frequently heard Thames fishermen say to one another, "Have you had any sport to-day," and shaking their heads mournfully they say, "No, but those confounded dace have been nibbling at the bait all day long." But the nibbling probably arose from a totally different source, and it has been barbel biting when they were in that capricious mood I just spoke of, and when they only bite very gently and tenderly. Now I have a little bit of a dodge by means of which I have tried to find out the weak points of a barbel when he has been in that particularly low-spirited condition with regard to feeding. Instead of completely spoiling my worm by the process of threadling previously spoken of, I take a perch-hook, No. 8 or 9, and then a lob worm, and pop the hook right through the middle. I just nick it through the middle of the worm, and leave the two ends of the worm to work about. Now if you compare the action of those worms in a basin of water, the one being threadled right up the gut with only a little atom of lively flesh at the end of his tail, and my worm with two small punctures only made in his flesh while the rest is wriggling and curling most deliciously, I think you will agree with me that if the fish be delicate and refined in his taste with regard to worms, there can be little doubt which of the two he would be likely to prefer. I venture to think he would take mine. The Thames fisherman also, when legering, throws out the bullet and turns the rod sideways at a distinct angle, so that when the fish bites he pulls the rod right down. Well, a child even could hook him then, but sometimes, when they are not feeding, the little resistance that is offered by the rod frightens them and they are off. Now I hold my rod and bait somewhat differently. Having put the worm on I throw out the bullet, and feeling it strike the bottom I lift

it up, and draw it towards me so as to get the gut bottom taut, and then drop it very gently and wind up with a swift-actioned Nottingham reel. This being done, I next turn the point of the rod so that its extreme top indicates the precise spot where the bullet lies, and place the smallest possible amount of tension on the reel, just so much only as to prevent the stream taking the line off. Consequently, when a barbel takes the worm I feel the slightest little touch and release my finger so that the line may run freely. Thus I let him take the worm, and he on his part feels no resistance whatever. Away he goes with it, and then he usually gets pepper, and it is cayenne of the first order.

A great consideration in connection with barbel-fishing is baiting your swim, and upon that depends the whole of the after success. I frequently hear of men who go down to fish the Thames, and in really good localities, where there are plenty of fish, putting in a quantity of bait over night, fishing the swim early the next morning, and the next day going home disgusted. A brother fisherman says, "Well, Jones, did you have any sport?" he says, "Not an atom; I put in 5,000 worms on the swim, and I never caught a fish." Why is that? Well, the answer is, because in nine cases out of ten a thoughtless angler puts his worms in at night, and he fishes over them the next morning. The consequence is, there is a herd of barbel inhabiting that particular section of the stream, they have all fed on those worms, and are in precisely the same position as a London alderman would be, if, after having just swallowed a huge dose of turtle-soup and venison somebody offered him a fat pork chop. You may put 5,000 or even 10,000 worms on to a barbel swim—I do not care how many there are—and allow the fish sufficient time to recover their appetites, say 25 to 30 hours afterwards, and then most certainly will you get fish, unless

there is some peculiar circumstance in connection with the temperature of the air, or water, or electrical disturbances, or anything of that kind which prevents the fish feeding. I could give a curious illustration of that. I once went to fish at Mr. Worthington's weir at Sonning. I put into a barbel swim there 28 quarts of lob worms. I think there were nearly three slop pails full. I fished there 24 hours afterwards; and I may add that at that time I was the angling editor of 'Bell's Life,' and my racing chief, Mr. Henry Smurthwaite, known to every racing man under his nom de plume of "Bleys," was with me. The result of the day's fishing, after giving the barbel a really good rest after baiting, was for the two rods something like three cwt. of fish, besides some large trout and perch. I should add, however, that out of the three cwt. we only brought ten fish home, the rest being turned back into the river. Now for a few words of practical instruction.

The best known methods of capturing this essentially sporting fish are three in number, to wit—with the leger, float and clay-ball. Practice with the float may be divided into what is known as "tight" or "long corking," and fishing with the "slider"—the latter, certainly, a capital style to adopt, when deep and varying runs of water have to be attempted. I propose, therefore, to deal with the subject matter of this part of my paper in the order named at its head, making my chief point the leger. The rod used—an important item,—should, in my opinion, for convenient fishing never exceed 12, or at most 14 feet in length; for as this sport is usually pursued by its votaries from the medium of a punt or boat, as affording the readiest opportunity of reaching known haunts of the fish under notice, a rod of this length will be found far more handy and useful in a cramped space than one of greater length.

Its material is the next consideration, and, after trying rods manufactured from a variety of woods, I can find none so reliable and lasting as one of good sound cane, such as can be obtained to perfection from my friend Alfred, of Moorgate Street, himself a good and practical fisher, and hence a good man to apply to. The joints should be perfectly straight, free from flaw, and the less knots in them the better, the ferrules strong and well fitted, the rings upright, as a matter of course, thus allowing the line to run freely, when thrown out from the winch; and with regard to the action or "play" of the rod, it should neither be too stiff nor too supple. If it is very stiff it does not show by the "niggle" at the point of the top-joint, a process most popular in use, when the fish is attacking the bait, or at any rate, if they are feeding badly, the best moment at which to strike. If it is too supple, the quick stroke of the wrist necessary in driving the steel home into our tough-nosed friend's snout is frequently lost through the action being diffused too slowly through the elasticities of the weapon in use. The rod, therefore, should be fairly stiff, with a fine top, a trifle stouter than a roach top, yet with an amount of bend and give-and-take work about it as will aid the hand, wrist, and reel, in killing a good fish, should the angler be so fortunate as to get hold of one. The best advice that I can offer to a tyro in the selection of a rod is this—in buying your rod go to such men as Alfred of Moorgate Street, Gowland of Crooked Lane, Bowness and Farlow of the Strand, or Carter of St. John Street Road. Tell them exactly what you want, pay a good price at the outset, and the probabilities are that you will get a tool that with careful usage will last a lifetime. While upon the subject of rods I may mention, perhaps with advantage to my readers, the excellent rods that are to be obtained

from many of the well-known Nottingham tackle manufacturers, and no one does them better than Wells, of Sussex Street, Nottingham. They are made of deal, beautifully balanced, well whipped and ringed, with substantial fittings, and for float work a man can have no better rod in his hands. For legering, however, they are a bit too "kittle," and from the frail nature of the material employed in their manufacture it is obvious that at the best of times they require a delicate hand, and an absence of anything like pully-hauling business. Otherwise a smash is about as likely to ensue as an explosion if one dropped a hot coal into a barrel of powder. In the hands of a workman these rods are simply perfection for floating, and so beautifully light that the longest day never tires. And now as to the winch, another important auxiliary. Wooden pirns, or Nottingham winches as they are more generally called, as well as those made of vulcanite, are so thoroughly well made, and so cheaply put together nowadays, that no one would dream of using any of the old-fashioned brass furniture that formerly pertained to the rod. Reels can now be had combining two actions, the one being the free, easy run, so necessary to the practice of float-fishing with a long run down-stream, the other, a check action, obtained by simply pressing a spring on the reverse side of the handles, which impels a little catch downwards, the point of the bolt-shaped catch nicking into the cogs of a wheel fitted upon the centre pin, thus obtaining the most perfect check. Pressure backwards upon the spring relieves the cog wheel, and the winch then runs upon its centre pin with the velocity of "greased lightning." Such a winch as this is the best that can be used, the only drawback being—and of course there must be something—is that if it be manufactured from wood and one gets out on a soaking

day, the inner rim will swell with the wet, causing the winch to clog. I have once or twice experienced the misfortune of a "strike" on my colleague, the reel's part, brought about under watery conditions of weather, and that too at a time when the fish were, to use an angler's slang, "mad on"—a concurrence of circumstances not to be devoutly wished. It has struck me that an edge of very thin metal fitted upon the rim of the inner wheel would entirely obviate this only defect in an otherwise perfect winch. A twisted silk line is good, but a plaited line is far better; I would advise anglers, therefore, always to choose the latter. Twisted lines, unless the angler is an adept at throwing from the reel, of which more anon, kink abominably after they once become wet, and I leave it to my reader's own mind to picture the misery of a man who gets some 25 or 30 yards of line in a fearful "boggle" about twice out of three times in his attempts to throw out to a spot where the fish are taking the bait. With a plaited line it is different; and even if the angler cannot throw from the reel—a little performance that requires some practice before perfection is attained—he has only to be fairly careful and see that his coils of line are free and clear of any obstruction in the shape of twigs or stiff blades of grass if upon the bank, or the toes of his boots, or the chair legs in a punt. At the time of throwing out also, dispense with anything like a jerk when impelling the bullet to its desired destination, thus securing the ultimatum of your happiness—to wit, the free running of the line through the rings, without any tangle, or the annoyance of finding the fine line linked well round one of them, and the bullet and leger bottom flying away through space by itself, broken away from the line by the impetus of the throw, and the sudden check caused by the link aforesaid. Supposing, then,

that a plaited line has been selected, I would have 100 yards of it at least on the reel for legering, and for this reason. Careful as one may be, a fine line always rots and frets more or less with hard work, and it is always advisable before commencing a day's campaign against such an undoubted hard puller as your barbel, to see that the line is in good condition. If it is not, break it away in lengths of a yard at a time, until it will stand the test of a strong, steady pull. Thus 100 yards will not be too much. Consistently with the requisite strength that is required, the line cannot be too fine, for it should be remembered, that the finer the line the less effect the stream has upon it, and the less weight will be required to keep it at the bottom. Thus it will be sufficiently patent to every rodster that the smaller the bullet used, if one can only make certain of its being upon the bottom, the more readily will the bite of the fish be distinguished, and the more likely is one to kill a large one with a light bullet that can be held taut above him, than with a heavy one, which must cause a certain amount of bend or "sag" in the line when the fish is struck and pounding away for liberty. While upon the subject of lines, and before dismissing it, I may, perhaps, add a few words upon their preservation. Nothing ruins a line, no matter how good it may be, so much as allowing it to remain on the reel for any length of time after use, and a capital adjunct to the angler's equipment will be a light wooden winder, say a foot square, that fits closely and neatly to the side of the basket. On this the line should be wound off the reel, but not in lengths overlapping each other, directly the sport of the day is over, and care should be taken that a few yards more than the quantity that has actually been in use be unwound from the reel and well dried, to provide for the great probability of the wet having soaked down amongst the silk that has

been unwound during the day. When the line is thoroughly dry it may be advantageously dressed with the following preparation—as good and simple as can be used, keeping it thoroughly supple, and aiding it in water-resisting power—Take a bit of the best bees-wax that can be got, say of the size of a walnut, and a piece of the hard fat from the exterior of the sheep's kidneys, of about the same size, and melt them up together, giving the mixture frequent stirs with a stick, so as to assimilate the two substances thoroughly. When it is cold and hard, give the line a rub or two with this preparation every time it is used, and it will be found an excellent preserver of the most delicate lines. Leger bottoms should be selected from round, stout gut. Finer, of course, should be in the tackle book for use if the water is very bright, and each should be a yard in length. I have found nothing so good in the shape of colour as gut dyed of a light sorrel hue. I cannot help thinking that gut of this colour is less likely to be distinguished by the watchful, wary eye of a shy feeding fish, when lying on a sandy, gravelly bottom, than the blue gut, although I am aware that some of our best barbel-fishers pin their faith to the latter colour, and allow nothing to shake their allegiance. For my part, and having killed some barbel in my time, and at all seasons, I have found the sorrel gut giving better results than anything else. The proof of the pudding, therefore, being in the eating, I have only to add that white gut is an utter abomination. In fitting up the leger bottom, I use a length of the very finest stained gimp, of a yard in length, with a small bored shot fixed firmly upon it at the lower end, where the gut joins—this gimp being for the bullet to work upon, as I have found, over and over again, that the chafing of the bullet upon the fine silk line has caused a large amount

of wear and tear, and losses of good fish, from the silk breaking exactly at the spot where the bullet worked upon it. Such experience caused me long ago to alter my tactics, and, if the gimp is selected fine enough—and it can be got nearly as fine as stout gut—and it is used with a yard of gut below it, it will not operate against the angler's success if the fish are feeding at all. If they don't feed, nothing on earth will make them. Hooks for legering, at any rate for lob-worm fishing, should be long in the shank, stout in the wire, and not too broad at the bend ; they are sold at all respectable tackle shops now, with a small silk loop whipped on the shank in lieu of the usual length of gut, and are far preferable, doing away with the chance of the hook link being weaker than the gut bottom—and, again, a quantity can be carried without the chance of getting the gut links tangled and warped, a state of things frequently happening no matter how careful a man may be.

Perhaps the best hook in use at present amongst barbel-fishers is one made by Messrs. Allcock of Redditch, an eminent manufacturing firm, and called "The Wheeldon Barbel Hook." It is a white Carlisle and has a small wire loop at the top of the shank, on which it is only necessary to loop the gut bottom.

Although my paper is entitled "On Modern Fishing other than Trout and Salmon," I can hardly, in dealing with the Thames, leave the question of trout-spinning entirely out, because it is a question so strongly applicable to the Thames, and to no other river ; therefore, I feel I must say half-a-dozen words even at the risk of tiring you. I think we ought, as English anglers, to feel very proud of our great home river, and of the quantity and calibre of the fish which inhabit it. I doubt very much if our friends from America or New Zealand, or any other place you like

to mention, can bring forward more magnificent trout than have been taken in the Thames within the last few years. The Kennet again is swarming with trout, and as for size, I have only to point to some examples in the Exhibition. I think Lord Craven has taken trout in the Kennet up to 20 lbs. in weight, and two years ago a trout was taken in the Kennet behind Messrs. Huntley and Palmer's biscuit factory close upon 17 lbs. Neither is that an isolated instance, because within the last Thames trout season an old friend of mine, Mr. Ross-Faulkner, took a trout at Hampton Court Weir 14 lbs. 15 oz., and that is almost within the sound of the omnibuses and cabs rattling through Oxford Street. Other anglers have had splendid samples from the Thames. I might mention the names of Messrs. Allard, Hughes and Pugh amongst them, all of whom are showing grand trout at this Exhibition. I think it redounds very greatly to their credit as anglers to have caught such splendid trout. Again, Mr. Forbes, of Chertsey, a gentleman I have the honour to know, has perhaps the most magnificent collection of Thames trout that any man ever saw. With regard to trout-fishing there is a considerable amount of judgment necessary in approaching the locality that a trout inhabits. In the early part of the year you find trout on the scours near where they spawn, and they do not move up to the weirs, where they are more frequently caught, until the warm weather induces them to do so. As soon as hot weather sets in, you invariably find that trout follow the stream up further and further, getting at last to the heads of the big Thames weirs. There is a considerable amount of precaution necessary in approaching a weir. If a man goes to a weir-head where the foot-walk goes across from side to side, with a great sixteen-foot rod in his hand, and looks over the head of the weir where usually

the trout are in the habit of lying, what is the consequence? Away goes your fish. Thus I may perhaps, hint at the best style to adopt under the circumstances.

To my notion a man wants two rods, so as to make his kit thoroughly complete, and so far as spinning pure and simple is concerned, I propose to speak of that branch of trout angling first, thus giving it the preference over live baiting. Not because I have fallen into the hypocritical groove which obtains in angling circles, and which enables certain very virtuous gentlemen to denounce live-baiting publicly, while they follow it up on every possible occasion in private; nor from the conviction that spinning is necessarily the purest and most sportsmanlike method of angling for large trout.

But why two rods? Well, I will give you my reasons. In punt fishing, or spinning from a boat, a long rod is often sadly in the way, and in the course of a day's casting to either side while working down a likely-looking reach where it is known fish lie, will tire and strain even a very stout arm indeed, quite as much as in a day's salmon casting, take my word for it. For such work, therefore, commend me to a rod lightly yet strongly made of sound unblemished mottled cane, 12 feet in length, with plenty of spring and play in it from butt to point, and fitted with the very best ring that ever was invented for casting or throwing purposes, viz., that brought out by Gregory of Birmingham, and at present fitted to most of the rods turned out by the celebrated firm of Allcock of Redditch. It is a perfectly simple appliance, being an arched wire whipped on at either side. The ring itself is firmly soldered into the centre of the arch; but it is absolutely out of even a careless angler's power to engender such an awful possibility as a kink, and that alone should be a sufficient guarantee of its worth to

any one who has either lost, or who can imagine for one moment the diabolical and horrific grief and misery of losing, a good trout by such an unlooked-for and apparently impossible contingency.

In weir spinning the condition of things is altogether different. Here, not only is it sometimes necessary to fish at a considerable distance below one's standpoint, but a very large scope of water, every inch of it looking capable and likely ground, has to be covered. For this, therefore, give me a sixteen foot rod, pliable and springy, so that by the mere motion of the top joint alone I can keep my bait revolving smartly without taking up more than an inch or two at a time of the line.

Traces, flights and baits should have each a separate place. In connection with the first and second of these, two very necessary items, the greatest possible care should be used in the matter of their selection, for it is mainly upon their delicacy, accurate work, and powers of successful resistance to the plunging of a big and powerful fish, that the issue of the battle lies. Colour, likewise, is a great point, therefore principally choose, for trout spinning at any rate, gut of a pale smoky blue-green, if such a colour exists, a matter I am by no means certain about, and next see that it is correct and clear to the eye, free from white specks, or from knotty excrescences to the touch. Then if you have sufficient ability, and will take my advice, make your traces yourself. If not, you will not be far out by leaving them in the hands of such men as Alfred, Farlow, or Gowland.

But in their manufacture, whether it may be done at home or abroad, either carry out, or leave, positive instructions, that from top to bottom of the trace there shall not be one atom of binding in it. It is this very thing that in nine cases out of ten has been responsible for the loss of a good

fish. "Godfrey Daniel!" says the fisherman, after seeing a grand fish just hooked fling himself clean out of the water and go with lightning-like speed down the run. "Godfrey Daniel! what a beauty!" Then ensues a splendid run for twenty yards, when a man's heart thumps painfully—absolutely painfully—at the bare notion of such a glorious creature becoming his own in due and proper time, and one vows "by our lady" that he shall be played as carefully, and with as gentle touch as one approaches the dear partner of one's bosom at that awful period when she's sulking for a new bonnet and can't have it. Hands up! There's another fling out of the water, and old brown-faced and horny-handed Tom Davis says excitedly and hoarsely, "Drop point on ye're rod, sir—smart, now!" and you instinctively do it as matter of course. Gone? Impossible! But it is so, and there's no getting away from it, and presently you see your own once fondly hoped-for trout leap a hundred yards in the stream below you, in the vain attempt to get rid of the half-yard of gut hanging from his jaws and the stinging triangles in his soft fleshy mouth. "Ah, gone at a bit o' binding," says old Tom ruefully at your elbow, surveying the broken trace. "Thowt so; I did by gum! It's they blessed careless coves at the shops as is to blame for half the trout as is lost;" and I entirely endorse old Tom's imaginary opinion. Therefore not a scrap of binding, if you please. It is just as easy to make small loops for the swivels, and after putting the loop through (the gut being well wetted previously), to draw them tight; and in the long run it is ten times more reliable, take my word for it. Now as to swivels and the length of the trace.

I sometimes tumble across trout-fishers up the Thames who are spinning a weir with three-quarters of a yard of gut

(and that very coarse), three large jack swivels, and a great ugly lead, heavy and coarse enough for the coarsest and roughest pike fishing in private waters, where sharpset fish will often run at anything. For my own part, and knowing that if there is one fish which is especially more wide-awake and cunning than another it is an old wary Thames trout—I always start on the war-path as well and carefully armed as a man can be. I don't mean to assert, mind, as a fact, that the angler with coarse tackle never gets a fish. On the contrary, there is nothing so likely, supposing he knows from observation exactly where a trout feeds—and they feed day after day in the same spot to the fraction of a foot—that if he goes at early morning, before the weir has been disturbed by any of its paddles being drawn, and cautiously drops a biggish bait which spins well exactly over his lovely mottled nose, but that he will dash at it without an instant's reflection. That's when he is dead hungry, and then any fool can catch him. But only let him have a "bit in hand;" let him have, say, two or three bleak or dace down his throttle, just to take the sharp edge of the morning off, and rely upon it, it's the artist then, and not the chance man, that gets him even to look at a bait at all.

Thus I like a fine gut trace of full a yard and a quarter long, the lead so placed that it is a yard of trace length, and the length of the flight-link itself from the bait, and with at least five small, well made, well oiled swivels, and one double one, all set below the lead. There is no necessity for any above it; the lead is not intended to spin, and all the motion, therefore, should be below it. The more there is, and the freer it is, the less likelihood of a kink or snarl in the line. For the lead itself, nothing, in my opinion, beats the "Field lead," when

mounted on an inch or two of very fine gimp, and next to that is a very good one brought out by the editor of the 'Fishing Gazette.'

As to the flight, after trying them all, I come to the conclusion that there is nothing better, perhaps, than the simple old Thames flight, with four sets of small stout wire triangles and a single liphook. The liphook is the main trouble, because, do what one will, or act as carefully as one will with it, there is always more or less chafing. I tried the liphook bound upon a short slip of starling's wing quill, the gut passing through the interior of the quill, and this answered well—for a time. Afterwards, as the gut and quill both swelled with the wet, it became simply immovable, and necessitated each fresh bait being of precisely similar size to its predecessor. Then I went back to the old-fashioned hook, with a single small loop of gut tied on the tip of the shank. This loop permits the hook to fly loose up and down the gut link, but when it is in use, and the gut thoroughly wet, a very efficient "bite" is obtained by simply lapping the gut carefully and systematically round the shank, until the liphook fits accurately to its place at the nose of the bait.

It is by no means easy to describe baiting theoretically. More may be learned by watching the operations of a really good Thames fisherman for an hour, than by all the pen-and-ink teachings in the world. However, practice, based upon a fairly good theory, may accomplish great things, so that, having first selected a clean silvery bleak—perhaps the best of all bait for a big trout, and particularly for a spinning flight—wet your fingers and hands thoroughly before handling the little fish, with a view to saving as much as possible of his brilliant silvery armour. Then nick one of the hooks of the bottom triangle exactly through

the fleshy root of the tail, and precisely at the angle of the fork. That establishes a firm hold, and then, taking the lateral line as a guide, carefully fit in hook after hook upwards, towards the head, taking care that you bruise not nor tear the delicate skin, finishing off at the top triangle, which should fit nearly at the root but slightly above the pectoral fin. Draw back the liphook, hanging loose on its wet gut, measure off say half an inch for lapping, twist it carefully up until the bend of the hook touches the lips of the bait, and equally carefully put the hook through the very centre of the gristle of both lips. If it hangs straight as a die, with only a gentle curve at the tail, it will spin so as to kill a Thames trout, and if it don't, it won't; so there you are, don't you know!

I do not like artificial baits, although I don't say that they will not kill at times. But those times are, in my opinion, and in the majority of cases, just the same as when the short trace, coarse gut angler gets a run. Even here I must make an exception in favour of one bait, and only one, and that is the 'Bell's Life' spinner, made and sold by Alfred & Son, of Moorgate Street. This is simply a really good bait, beyond all shadow of doubt, and both in the Thames and other rivers has proved its unquestionable excellence and killing powers over and over again. As an instance, I may place it on record that on the 27th of April, 1880—the first season, I fancy, in which they came into general use, and on a bitter cold day to boot—H. P. Hughes, Esq., caught at Shepperton Weir a brace of splendid Thames trout, weighing respectively 9 lbs. and 7½ lbs. In each case the trout had completely gorged the bait, taking it so thoroughly into the mouth that it required the assistance of scissors before the hooks could be cut away. A very great deal, however, of the excellence of

these baits consists in the exact angle at which the tail is bent. They are sold, I fancy, with the tails fashioned sheer across, and this won't spin, or anything approaching it. The tail should be bent slightly over with the thumb and fingers of the right hand until it assumes a very gentle downward sweep or angle from slightly below the point or root of the dorsal fin to about the line of the ventral fin, or where the ventral fin should be. With this bait I have killed many good fish, both in the Thames and Kennet, a few years ago, and I shall try them again with certainly renewed confidence.

In casting, I think nothing will beat the good old-fashioned Thames plan, of holding a coil of line in the left hand, and throwing from that, save it may be that the stream is sufficiently heavy and strong to permit the use of a heavy lead, and then one can throw from the reel—best plan of all. In any event, have no loose line about either the bottom of the punt, or on your knees, if sitting on the weir beam with your legs dangling over in space. The end, in the event of a run, may be summed up in one sentence, viz., total loss of temper, and the continued and frequent use of a word which distinguishes say the mother of a thoroughbred foal, for the rest of that day on every possible or impossible opportunity. Remember that the least possible movement of the bait is sufficient. Do not let it remain stationary, or spinning in one position long together, because to the discriminating eye of an old and judiciously educated trout, particularly of the order *Trutta Tamesis*, such a course of procedure would look odd, to say the least of it. Rather work it slowly and very gently in and out and round about every little eddy and curl, and quickly across those dark, oily-looking patches between foamy runs.

I approach the subject of live-baiting in fear and trembling, because I am half afraid that its very mention may bring a hurricane about my devoted head, and heaven knows, having had some experience of married life, I don't want that. Still, I know full well that there are scores of people ready to howl indignantly and defiantly against any one even breathing a word about live-baiting in connection with Thames trout-fishing, yet who are the very first to put it in practice when they are clear of the lens of public scrutiny. I live-bait myself, and shall continue to do so, for three very good and sufficient reasons. In the first place I beg to assert that there is ten times more real skill and science displayed in killing a good trout with my live-bait tackle than with all the spinning tackle in the world, because it is fifty times at least more delicate and fragile. In the second place, because, in spite of lamentations with upheld, shocked, and horrified hands, by sundry virtuous and "unco guid" howlers, I fail utterly and entirely to see anything unsportsmanlike in it; and, for the third, and perhaps most important of all, because I know perfectly well that, good as my chances are in a weir or rough stream with spinning bait, in wide, open, still reaches such as the very biggest trout lie in nowadays, it is at least twenty to one on the live-bait tackle as against that for spinning. Aye, and there is yet another reason, and that not the least of them either. Wherever it is known that a big trout feeds—and there is not a trout in the Thames whose home is not spotted to the fraction of an inch—there sits day after day either a professional fisherman with a customer, or without one—it is quite immaterial which, in the majority of cases—or some riverside loafer, whose only mission is to catch that trout by hook or by crook—crook preferred—and straightway convert his bones and body

into beer and "bacca." Now, why should I, whose trout-fishing, cut it as fine as may be, costs at least a pound a day on the Thames, run less chance possibly than the very man who writes to tell me of a trout in such-and-such a place, and who very likely has run him, pricked him hard, or in some few cases absolutely caught him and sold him the day before; or of the individual who values the splendid fish by just so many pots of beer and no more, who knocks him ruthlessly on the head, in or out of condition, and who has been at him morning, noon, and night from the first peep o' day on the opening of the season?

Now here's the pattern of my tackle, any one is welcome to it, and if there be any who in time to come can tell me they have killed a ten-pounder on it fairly and squarely, no one will say more heartily—"Here's t' thee, my lad, and more power to your elbow," than he who pens these lines. First for the rod. It is a little 12-foot Nottingham barbel rod, made of deal, with a lancewood top, light, springy and handy. My reel is a wooden one, holding 200 yards of very fine silk, such as would be used for chubbing with pith and brains, or with cheese in the autumn and winter months. I have a bottom of three yards of finest gut—a very fine tapered fly cast is best—with, at the extremity, two small fine-wired perch hooks bound on the bottom strand, the lower two inches from the upper. One shot only—size No. 3—is put on the gut—4 ft. from the bait, so as to steady it in the stream. Just above the gut, and on the silk running line, is a bit of pear-shaped cork as big as a barbel bullet, sufficient only to buoy the line in a slight degree. On the upper of the two hooks is liphooked a live bleak; the other hook flies loose, or, as I fancy, clings to the side of the little bait. If you can find

and kill a big trout with this—fairly and squarely, mind, taking all the chances of submerged roots, boughs of trees, weed-beds or sunken piles—never mind anybody growling, but tell them to go and do likewise. There is not one in twenty who can, you bet.

PIKE FISHING (SPINNING).

I may now perhaps give you my ideas with reference to pike-fishing, and in the first place I think that a pike-fisher's equipment should, with regard to rods, consist of two—one being kept solely for spinning. This rod, being not more than 12 to 14 feet in length, is built so as to be more limber, and consequently has more "spring" in it than the other, which may be kept for paternoster work, trolling upon rare occasions, and live-baiting. A stiff rod for spinning—to my mind the most artistic method that can be adopted—is simply comparatively useless. The top, and indeed the rod generally, should give freely to the upward sweep of the arm when throwing, the rod being held tightly and easily in the right hand, while the butt is planted firmly in the hollow of the groin. Thus it materially helps in the direction to be obtained, and the length of the cast. Having a solid butt (which I prefer to a hollow one), the rod may yet be obtained as light and handy as is consistent with the work in hand; and any of the well-known London makers may be thoroughly depended on for workmanship. Upright or standing rings, as a matter of course, are a *sine quâ non*; without them it is impossible to throw to any distance without the line "kinking" and knotting up in a horrible tangle—perhaps the most annoying thing of all on a cold day, and when fish are feeding. The line used for spinning should be 60 or 70

yards in length, not *too* thick, thoroughly waterproofed, and well made and substantial in quality and strength ; for it must be borne in mind, that it has to undergo more friction in the length used for casting than any other running line. The length named will be found amply sufficient for ordinary waters, such as the Thames or Trent, where the fish taken are usually of the ordinary size, though were I fishing some of the Irish lakes, or the private inland waters of England, where the fish have the reputation of being monsters, I should perhaps take care to have a bit more on the reel. The winch to be used is really very much a matter of fancy, although, for my own part, I prefer the plain wooden Nottingham reel to any other, for its ease in manipulation, and the rapidity with which one can reel up slack line. A reel I have lately seen, and one of the most recent manufacture, is a Nottingham reel combining two actions—the one being the smooth, easy run so necessary in “long corking,” the other attained by pressing a spring on the reverse sides of the handles by which a cog is set to work giving check action instantaneously. The “flight” mounted upon fine gimp should have a set of three or four triangles and one moveable single hook. In baiting this flight of hooks, care should be taken to use dace, gudgeon, roach or bleak, whichever may be preferred, of a size proportionate with the length and fit of the flight of hooks used, as nothing tends so much to the ugly “wobbling” of a bait in the water as an over-sized fish badly mounted. Supposing then that a suitable bait is found, the bottom triangle is firmly fixed by the penetration of one of the hooks only in the extreme root of the tail, just where the flesh joins the rays ; then, holding the dead fish firmly between the thumb and fingers of the left hand, so bend or curve the body that the tail assumes a clear and

distinct sweep. Keeping it thus, force the point of one of the next set of triangles nicely, and without displacing the scales, into the body of the dace, so that the tail is kept firmly in the position desired. The other triangle is fitted into its place, whilst the small sliding hook is pulled down the gimp, and fixed through the nose of the bait, thus keeping all in the required position. Let us still further suppose, then, that the angler is at the waterside, and about to make his first cast. First, one word of advice as to approaching the side of a weir or river. Wherever you may be intending to angle use extreme caution—it is never thrown away—and tread as though you were in the backwoods and dreaded to hear the twang of an ambushed Indian's bowstring. Rely upon it that fish nowadays are *not* to be caught as they were in the days of Walton and Cotton; they get more and more subtle and cunning every day. Where there were ten anglers ten years ago there are now a hundred; the consequence is that every bit of fishable water is fished to death by anglers of every grade, from the rank duffer with a coarse gut line, enormous cork float and a big hook with a brandling impaled thereon, and sitting right over the water, yet who still, with a true fisherman's soul, hopes to catch that whacking perch that he saw an hour ago chase some gudgeon out of that deep hole and on to the shallows at his very feet, to the real artist, who fishes the hole with fine Nottingham tackle but little later, and takes glorious perch one after the other under "big float's" very nose, much to the latter's astonishment. So he puts his primitive tackle down to wonder at the other's skill, delighted if he can even manipulate the landing-net when an extra "big 'un" comes to bank.

Pike in fine open weather lie close in to the side, and under cover of projecting banks, tree-roots, and beds of water-

flags and reeds. In colder weather they seek the shelter of the deeps. As a matter of course, if the angler approaches full in view, and with heavy and incautious tread, the place where a fish is lying, it becomes almost equally certain that the fish sees him long before he is close to his abiding place; and with one stroke of his great tail, he shoots out of the shallows and into the deeper portions of the river. So let us then "softly tread, 'tis hallowed ground," and having gained a likely spot, reel off some loose line, letting it fall clear of roots, grass, stumps, and rushes, to the left hand, and cast quietly, with as little splash as possible, if on a fine quiet day—on a windy day it doesn't matter—first to the right and then left, until converging to the centre. If the water has been fairly covered, and these preliminary casts need never be more than 10 or 12 yards from the side, and if further success does not attend you, draw off yard by yard from the reel, until a long cast, yet well within your power of rod and arm, has been attained. Never attempt to overdo it, because it always results in failure, and the tyro who tries to do a tremendous throw, will find that the extra momentum simply brings his line into a glorious tangle, and a very nice thing in fishing is a real, downright tangle—soothing to the feelings, very! As soon as the bait touches the water after the cast has been made, draw it across and against the current, with long regular strokes, with the left hand, avoiding a jerky motion, and taking care to keep the point of the rod well down, almost touching the water. The moment the point of the rod is raised, it causes the bait to spin nearer the surface, which is not to be desired, save in shallow, weedy waters. Spin the bait right up to your feet, and do not be in a hurry to get it out of the water for a fresh throw, for it often happens

that both jack and perch will follow the bait out from the deeps, and take it quite close home ; in fact, within sight. When a jack strikes the bait—of which fact there is usually little doubt on the angler's part, for it is plainly perceptible to the touch—strike him gently, yet still hard, so as to fix the hooks well within his bony jaws, and, having hooked your pike, it must then be very much a matter of discretion and judgment how you handle him. If you are fortunate enough to get hold of a really big fish, remember that, although pike as a rule do not go with the rattle and dash of a freshly-hooked salmon, or trout even, nor have they the dogged pertinacity of a barbel, they have—and particularly big fish—an immense amount of muscular strength, and no liberties must be taken with a good one “just on.” Keep a tight line on your prey ; keep him, if it is possible, as far away from the beds of weed as you can, and at the earliest opportunity get his head out of the water, and well up, giving him the benefit of a “back wash,” as the rowing men say, down his capacious throat. Watch him keenly and warily, and give him hand and reel instantaneously if he makes a determined rush, taking care that no slack lies loosely about to get entangled in coat buttons or your feet. When your fish shows by his rolling, with his broad flat side to the surface, that he is fairly settled, lead him to a convenient place where the water shallows, and, bringing him to the side by the aid of the *reel*, and not the hand, get him close in, and gaff him with all speed.

LIVE-BAITING.

Under the head of live-baiting, the pike-fisher embraces several varieties of angling, chief among them being the

well-known and most common method of fishing with a living fish bait attached to a hook and trace, and suspended in the water by the buoyancy of a big cork float. In large pools or meres, or indeed in any waters where there is little or no current, this style of pike angling is the easiest, and consequently the most idle. After baiting the hook, the angler can put his rod down and leave the bait to play its own part, which it generally does if lively and attractive ; but it always seems to me a far less amusing method, apart from the science displayed, than spinning, or paternoster work, while it cannot be doubted, supposing one has a cold wintry day to fish in, which of the two is better calculated for keeping up the necessary caloric at any rate. A rod for live baiting should be stiffer in its action than the spinning rod, and one of 14 feet, light and handy, will be found long enough for anything, with well-made upright rings of good size, through which the line can run freely. A pike rod with small or moveable rings, is an abomination, and not to be tolerated at any price, and it certainly seems strange to think that nowadays, with all the vast improvements that have been made in sporting tools, one could find any man so conservative in his opinions as to be firmly wedded to the use of one of the old-fashioned rods in preference to a modern one. That there are such men in the world is beyond all question, for it was but the last season that a dear old friend of mine, whom I have preached to any number of times, yet in vain, was out "jacking" with me and lost three or four good fish through using a miserable old rod with moveable rings. The line "kinking" with the wet, ran freely for a moment or two and then got into a lovely "boggle" round one or other of the rings. A guess at what ensued, with a good fish running, is not difficult. The same dear old "buffer" persists in using a muzzle-

loader on "the first," whilst every one else has their Boss or Grant, with breech action, and modified choke, and all the rest of it, and then he grumbles at being left behind ! while the major, as he crams his cartridges in, mutters, politely muffling his tones, however, something about "D——d old muff !" Given, then, a suitable rod, a plain check winch, or, better still, a "Nottingham" holding plenty of line, from 70 to 100 yards at least, is the next desideratum. It will be noticed that I advocate more line on the winch for live-baiting than I do for spinning. Why ? I fancy one of my readers' queries. For this simple reason—a fish striking at a spinning bait is hooked, or should be, there and then ; and, unless he is a veritable mammoth, he will, by careful management, succumb under 30 or 40 yards' run ; but in live-baiting, unless one is using snap-tackle—of which more anon—a fish may run fully that quantity off the reel, before he reaches his *sanctum sanctorum*, and before absolutely pouching the bait. A much finer line can be used in live-baiting than when adopting spinning measures, because there is far less friction, hence less wear and tear ; and my idea is that tackle cannot be too fine. Half the fun consists in the satisfaction that ensues in knowing that you have settled a "grouser" with a thread, as opposed to "the barge rope and pully-haully system." The next thing to consider, then, is the "trace," which should consist of fine gimp, or better still, stout gut, with three or four swivels in its length, to assist the bait in its gyrations. These swivels, and their free working, are important elements in jack-fishing, so that at the end of a day it is worth while for a piscator to see that they are dry, and indeed all metallic portions of his tackle, before putting them aside. Care in this particular is never thrown away. Touching live-baiting, and when adopting the old-fashioned, and, I am glad to say, nearly played-out

method with live-bait and a double hook, it is made so as to lie flat and close to the side of the fish. This is attached to the trace either by a spiral screw or a wire running round a portion of the extremity of the bottom swivel, or by a sort of snap. I certainly prefer the spiral apparatus. With the double hook, the infamous baiting needle comes into operation, and is used by looping the loop of the hook-link into the eye of the needle—the latter being made with a flat sharp point at the other end. Then holding your dace tenderly, “as though you loved him,” insert the point of the needle just beneath the skin at the edge of the gills, carry it through, taking care not to wound the flesh under the surface of the skin, and bring the point of the needle out behind the rays of the dorsal fin, drawing the gimp through, noting that the hook lies flat and close to the side of the fish—then pop him at once into the bait can. Jack-men using the single hook simply hook their bait through the upper lip or the back fin; but this is a style which finds little favour with a good pikeman. All being arranged, attach the hook-link to the gimp trace, and you are ready so far as the baiting is concerned. The trace should, of course, be sufficiently leaded or weighted, to ensure the bait being kept well down, and without giving it an opportunity of rising too often to the surface, which they frequently have an unhappy knack of trying to do. Much depends, with regard to the lead, and its weight, upon the size of the bait used, and also upon the depth and character of the water. Personally I strongly disapprove of side-hook fishing, and only speak of it because fish will occasionally take a bait upon this tackle when they will look at nothing else. The float used must also depend, so far as its size is concerned, upon the buoyant power required, but it is a good maxim never to use one larger than is absolutely necessary, nothing

being more likely to scare a shy-feeding fish than to find that he is dragging a lot of unknown apparatus behind him. Besides that, a smaller float, supposing it to be a weedy water, is the less likely to be "hung up" during the preliminary canter. I prefer an oval-shaped float, bored, of course, and with a quill through it, through which the running line is passed, and a wooden peg fitting firmly into the orifice of the quill, keeps all tight—particularly as the action of the water causes the peg to swell. Many anglers use the above float and one or two smaller floats, called "pilots," which prevents the line "bagging" immediately round the float, and from twisting, and they are doubtless a useful adjunct. In windy, boisterous, and very cold weather, the nearer one's bait swims to the bottom the better, as the fish—the larger ones especially—under such circumstances always resort to the deeps, while on fine, mild days they will be found more in the shallows; and it has seemed to me that on such occasions, when the wind and atmosphere is nipping keen, live-bait fishing in the deepest portions of the river is more likely to command success—from the fact that the fisher goes at once into a likely stronghold. A big gudgeon, carefully put on the hook, is, when the water is bright, as good and attractive a bait for pike as can well be used—he is, besides, a tough and game little fish, and, if uninjured when thrown into the water, has another qualification, which makes him valuable,—he always seeks the bottom. In thick water, he is, from his sombre colour, not so good a bait as the more silvery dace. This latter fish, as well as small chub, are also excellent as pike baits, and good-sized bleak as well, but bleak are an excessively delicate fish, and require most careful handling in any case of live-baiting, and if hurt in the least degree, soon "turn it up." Small carp furnish

a good, lasting bait, and in an emergency, the gold-fish bowl may be emptied — this, however, only on high days and holidays, for it will be found an expensive luxury. Nothing can be more certain than that a lively, hard-working bait is immeasurably superior in its killing powers, in opposition to a spent or weary bait, so that the angler should always endeavour to have his lure in the very best possible condition. It is equally certain however that there are times when pike are so ravenously “on,” that I am almost inclined to believe in a chance of a run if one used an old boot for a bait. Given a run, there is not the least necessity to wait “ten minutes ;” pay out the line freely, and when he stops he’ll pouch it in three or four, or not at all. If after stopping he moves on again, strike him at once. A great disadvantage in the method of live-baiting with side-hook is the certain tearing of the skin, and consequent disfiguration of the bait, as well as the chance of killing small fish. All this is obviated by the use of snap-tackle, which simply consists of two triangles bound upon the gimp hook-link and about two inches apart. One of these triangles is placed carefully through the root of the dorsal fin, while the other is fixed at the root of the pectoral. Another advantage gained arises from the fact that here there is no waiting for the fish to run to his nook, and then gorge the bait. The instant the float disappears one can make ready to strike, and when the line becomes taut and the angler feels his fish he can do so with the certainty, in nine cases out of ten, of securing the aggressor. Pike, as is well known, take their prey sideways ; thus it is clear that if a fish seizes the bait attached to snap-tackle, the triangle must be within his jaws, and the probability is that he is safe, due skill being observed on the angler’s part when he is hooked. There is not the least necessity to strike heavily, a smart handstroke is amply

sufficient ; indeed, where the line is taut, as it should be, a simple pull on the fish when running fixes the hook firmly. A point that may be mentioned is the likelihood of an inexperienced hand mistaking the efforts of a bait to escape the murderous jaws of a big pike, for "a run." It is astonishing what an amount of strength is shown by an active, lively dace, when he sees, as he doubtless does, the fish poke his shark-like head out from a weed patch or the cover of a bank, before making his fatal rush. I have seen a large float go clean down out of sight ; and where the water has been very clear, have traced the white top for some little distance, as the dace shot down-stream. A jack usually leaves little doubt on the subject : down goes the float clean away, and the water frequently eddies and surges round, showing where our friend "Johnnie" has shot out from cover.

Paternostering, another class of live-bait fishing, is a method of which I am excessively fond. It is carried out as follows :—Attached to the running line by means of a loop is a yard of good stout gut, the rounder it is the better, with a further loop at the other end. A paternoster lead, not heavier than is absolutely necessary, shaped like a pear, and with an eye of brass wire, is next fastened to the bottom loop, by simply slipping the loop through the eye and over the extremity of the lead, and then drawing it tight. Personally I prefer a silk loop attached to the end of the gut, and this loop to be put through the eye of the lead. A foot or a foot and a half above the lead a single hook (on gimp) is fastened, and a small dace or gudgeon is lip-hooked as the attraction. Drawing a sufficient quantity of line from the reel, the angler casts out in the most likely place where jack harbour, round the edge of rush-beds and reeds, or in deep still

pools ; the lead upon reaching the bottom communicates a distinct jar through the silk, which is easily distinguished. The line, held in the left hand, is then slowly worked in towards the bank or punt, from whichever stand-point the piscator is throwing, the lead being clearly felt as it scrapes along the bottom. I have found it much the better plan, instead of coiling the line at one's feet, to gather it backwards and forwards in the palm of the left hand, and with a good line, free from knots and kinks, this, after a little practice, is easily done. Those proficient in the use of the Nottingham winch throw from the winch itself, thus have no slack, and work in with the handle, a method, for those who care to overcome its no slight difficulties, far in advance of the other style. Much diversity of opinion exists among anglers adopting the paternoster in jack-fishing as to the correct moment at which to strike when the bite is felt. As a matter of course fish feed differently, and hardly ever two days alike. One day they are ravenous, and prepared to gulp down everything, the next dainty, and wonderfully hard to please ; but I have always found that if small baits are used—and these are more killing than large ones, although the latter are possibly more attractive—few mistakes will be made in striking if one feels a good fair pull, and particularly if momentarily afterwards the fish begins to move off. It should be recollected that supposing a small dace, say of three or four inches long, is on the hook, a jack has a rare width of jaws, and an enormous power of expansion, and with such a cherry, will scarcely make two bites, but gulp it in at once. Thus the hook is very likely to nick him, and once hooked, show no mercy, but reel up at once. Always avoid having more loose line than is really required, and kill your fish, whenever practicable, with the reel, and not with the hand. If a

large bait is in use it is advisable to give him more time, but if they are feeding freely and the bait is taken while the fish is moving off at the same instant, it is only reasonable to suppose that he has turned the bait as he ran, and so the "strike" may be attempted. In places where it is weedy, it will be found a better plan rather to dip down from the point of the rod, into all likely looking "shops," and abstain from working the bait on the bottom at all, from the likelihood of getting "hung up" in the weeds, and a consequent smash of tackle ensuing. Very much, however, depends upon the characteristics of the place when at the river side, and the intelligent angler will be greatly guided by circumstances. Nine times out of ten when paternoster fishing, the fish will be found hooked at the edge, or just outside the lip, and no difficulty will be experienced in extracting the hook. Beware, however, at all times of putting fingers near a pike's teeth; he'll bite like a crocodile if he has half a chance, and even a chance scratch is unpleasant. It is far better therefore first to land heavily on his cranium with the toe of your boot, and then—if the hook is gorged, and it is not easily got at with the disgorging—of slipping the hook off the trace altogether, than stand the chance of getting your fingers well scored with his grinders, which, to say the least of it, is not a pleasant process, and especially on a cold day. I speak from experience, and therefore feelingly.

PERCH FISHING.

A gloriously handsome fish, perch, when in condition, afford excellent sport, and they are deservedly favourites with each and every fisherman, let him be young or old. One of the very first fish I ever caught in my life was a

perch, and to this day I recollect my pride and exultation when I effected his capture. He had located himself near the sluice-gates at the head of a mill-stream, hard by my native vale of Derwent, and day after day I caught sight of him and looked wistfully and longingly, trying him with wasp grubs and brandlings—alas ! in vain. One day I met a man chubbing, using shrimps for bait, and watched him roving without float or shot under the high banks of the stream, letting the current carry his bait where it would. Thinks I,—“Shrimps will catch that perch,” and so they did, for going to tea an evening or two afterwards I found the clergyman’s superior moiety was expected, and amongst other delicacies shrimps were on the festive board. I “went for” that plate, and quick as thought a handful was transferred from it, and during the whole of that warm evening lovingly reposed in my trousers pocket, amongst, I doubt not, alley-taws, peg-tops, bits of string, a broken-bladed knife, a jew’s-harp and a paper of eel hooks. Break of day found me on the sluice-gates, and ten minutes afterwards that perch was on the bank among the dewy grass. What man is bold enough to say that my boy’s heart exulted not, and that my blood coursed not rapidly in my veins, even as the deer stalker’s who sees the Monarch of the Glen totter and fall to the crack of his trusty grooved barrel ? Pennant, an excellent authority, thus describes the fish under notice :—“The body is deep, the scales very rough, the back much arched, and the side line approaches near to it ; the irides are golden, the teeth small, disposed in the jaws and on the roof of the mouth, which is large ; the edges of the covers of the gills are serrated, and on the lowest end of the largest is a sharp spine.” So far as colour is concerned, our friend is perhaps as brilliant an inhabitant of our lakes and rivers as we have, his back being a rich

olive-green, deepest in shade at the ridge, and growing gradually lighter in hue as it approaches the belly, which is white, with a faint green tinge; transverse broad black bars, pointing downwards, mark his shapely sides, while the ventral fins are a glowing scarlet, the tail and anal fins being of a like colour, though a shade paler." The distinguishing characteristic of the perch is his formidable dorsal fin, and armed as it is with very long and spinous rays, it makes him at all times an antagonist well capable of taking care of himself. It would be just as well, if an angler is fortunate enough to get hold of a big, lusty fellow, to see that this saw-like fin is carefully smoothed down before gripping him to take the hook out, for I have known instances where a man's hand has been badly cut through incautious handling, and it is sometimes difficult to heal. They are thoroughly gregarious in their habits, herding together, and remaining for a long time, unless disturbed, in the same situation. I have watched them repeatedly when the water has been clear in a deep hole, and the larger fish always seem to claim and keep precedence over the smaller. Where such a hole is found, if the tenants thereof are in a feeding humour, it is just as likely that if the angler is wary and noiseless, and hooks and lands them, he may take every fish out of it. Prick, and hold one for an instant, and then let him escape, the probabilities are that every one of the shoal will follow their frightened fellow—then, one may just as well try somewhere else.

Perch are found nearly everywhere, all our English rivers containing them—Thames, Trent, Severn and Wye alike holding plenty of this game fish, while the Loddon is famous for bouncers, and nearly all the great inland waters of Britain, meres and lakes, are well stocked. Instances have been quoted to show that they have

attained a large size, it being said that a perch of 9 lb. was taken out of the Serpentine in Hyde Park, and another of 8 lb. from Dagenham Reach. The best that I ever saw was one that weighed 4 lb., full weight; he was a splendid fish, and was caught by a lad with a sixpenny rod, a stout gut-line and a hook baited with worm, from one of the pools of the little Brent at Hanwell. I was a boy at the time, and remember offering him a threepenny bit and my dinner for it; he didn't see it, and perhaps it was just as well, for I should have assuredly deceived my worthy sire as to who caught it. Deep, quiet water, where there is a gentle eddy, under hollow banks, holes where the roots of trees run down and their pendant branches shade the retreat from the fierce heat of the sun, the piles of locks and sluice-gates, and the back-water of millstreams, are all favourite perch haunts. In navigable rivers and canals he seeks the deeper parts, where barges lie, and about floats of timber, 'always choosing, if obtainable, a "habitat" where the bottom is sandy and pebbly. I have found it a good plan in wandering about the banks of an unknown river in quest of perch to note where the small fry of dace, roach, &c., most do congregate. Such a place will be a sandy bank at the edge of a bed of sedge and rushes, and where the current forms a little eddy; here the youngsters get out of the force of the main stream, and if the angler remains quiet, and unobserved by the fish—meanwhile observant himself—it is any odds that he will notice ere long the rush from the deeps, of a perch, with his bristling back fin erect and menacing, and a scatter of the small fry for the shelter of the sedges. Try here, then—it is sure to be good ground and likely to be remunerative.

Now for the tackle to be used. Select a nice light cane rod, 12 ft. or 14 ft., with standing rings, and not too pliable;

indeed, the rod previously described for legering will do admirably. Use a Nottingham winch, with fine running tackle, and first try the paternoster; this should be a gut length of a yard, round, and good in quality, and mounted with two hooks, the bottom one not more than five or six inches from the lead, the top a foot and a half above it. The lead itself need not be any heavier than is absolutely necessary to find the bottom, and withstand the current; if there is little or none of the latter, use as small a one as possible. I have seen advocated the desirability of using three or four hooks to the paternoster, but I am inclined to think that all practical men will agree with me in saying that two are ample; indeed with more, when one is using minnows, it would be found that a large supply of bait would be necessary, from the frequency with which they are jerked off the hook at the moment of striking. Don't use too large a hook—"No. 7's" are large enough—and hook the minnows through the side of the lip, it is easier than through the extremity of the nose, and it should be remembered that they are a delicate little fish, and won't bear much pulling about. At a likely-looking place, particularly at a spot where one may see the aforesaid small fry, drop the paternoster quietly in, and keep the line taut from the winch the moment the bottom is felt; then move it gently along the bottom, lifting it now and again from the point of the rod, until the spot chosen has been thoroughly searched. If they are there, and in a feeding humour, the angler will not be long before he knows it, and at the sharp "tug-tug," indicating the attack, one should strike without loss of time—instantaneously, in fact—and if the fish be hooked, as he will be nine times out of ten, and proves a big one, keep the line taut; be in no hurry with him; and after the first few desperate plunges are over, he is, with ordinary

care, your own ; then get him to the bank as soon as you can, into your landing net—and mind his fin. It is a curious fact, but nevertheless an indisputable one, that perch will frequently refuse a minnow on the paternoster, and yet take it greedily if put on to a hook, attached to a shotted and floated line ; so that it may be always wisely remembered that if they refuse the one, the other method may be tried with advantage. Small gudgeon are a capital bait for large fish, and if they persistently refuse the paternoster, a light spinning flight may be rigged up and tried, with a possible chance of success. Stone loach will also kill perch, and in waters that are brackish and subject to tidal influences, live shrimps are a killing lure. They are best kept in an open basket in wet sand, and care should be taken that they are never packed close together. Caddis worms, wasp grubs, and occasionally gentles, attract the notice of our striped friend ; but having done with the subject of live-baits as applied to fish, nothing will be found of greater killing power than the old and well-known bait, the worm of various classes, and first in order I take the lob. No perch angler should be without worms, for it frequently happens, and particularly in the autumn, and a little later on, that they will take worms freely, when minnow and gudgeon are totally disregarded. Worms cannot be too bright and tough, or too well scoured for perch-fishing, and lobs want a week at least in moss, and well looked after, if the weather is warm, before being fit for the hook. If they are wanted for immediate use, put them in a pot of tea-leaves squeezed dry, and let them remain for a few hours ; it will be found that the tannin, presumably, has had a miraculous effect. In waters where there are deep, slow eddies, with little or no stream, some of the largest perch, and now and again a

chub or two, are captured by using a gut bottom, of a yard in length, attached to a running line of the finest Nottingham or Derby silk. Before attaching the bottom, fit up a long cork float on the silk line, with a small well-drilled bullet below it—the hole through the bullet being sufficiently large for the line to run easily and freely. Then, having tied on the gut bottom, a split shot is fixed on the silk, just above the loop, so as to prevent the bullet running over the bow of the silk line. Selecting the place of operation, the float must be so arranged that the bullet just touches the bottom, and the proper depth being thus obtained, select a flat, silvery lob from amongst the stock, and note those with a red vein running down to the tail are the best for the hook, and put the hook point in an inch below the head. Threadle the worm until the shank of the hook is just covered. Worms put on in this manner show far better than when looped up on the hook, or entirely “threadled,” and hence must be a more attractive bait. Then cast out, and draw the bullet, when it is found to have reached the bottom, towards the point angled from, until the gut length is likely to lie straight on the bed of the river. If there is any current, the float, after righting itself, must be “held back” from the point of the rod, the light silk line being clear of the water; and do not be in a hurry if a dip of the float indicates that a fish is attacking the worm. Recollect that it is likely to be a big one, and, as a consequence, a far more cautious gentleman than the smaller of the tribe; wait then, until after the first preliminary dip or two, the float goes down clean out of sight, then strike, not too hard, however, and look out for storms and a long and strong pull at the top joint. Brandlings found in old rotten manure, and red worms, sometimes kill as well as anything, but I must confess to a

great fancy for the lob for nearly all big fish—the others are more suitable for the paternoster. If the water is very bright, and the fish are “dead off,” take away the float previously mentioned, and, substituting a smaller bullet as a sinker, throw out the lob, across, and up and down the water with a motion similar to that of spinning; a brace of fish may be taken in this way when they are very dainty.

CARP FISHING.

The carp is perhaps as handsome a fish as British waters can boast of as a resident, and is without any exception one that will try an angler's skill and resources to the utmost. In colour, a bronze or yellowish olive, deeper in shade towards the back; and with, when in condition, a splendid burnished sheen diffused over his sides, and great round scales, he looks, when freshly caught, a very noble and handsome fellow. The fins are brown, with a faint violet or purple tinge, the dorsal, in particular, large and well developed, and continued in its rays for some distance down the slope of the back; he has a large head, but by no means an unsightly one, a small round mouth, tough and leathery to a degree, with two small cirri or beards on either side; the tail, but little forked, is set firmly on, and denotes great strength, and he is, when large, a deep and thick-set fish. Carp are extremely prolific, and in suitable waters increase and multiply to an enormous extent; indeed it has been stated upon good authority that the weight of the roe taken from a single female fish exceeded the weight of the despoiled carcass when the two have been weighed the one against the other. A good deal of uncertainty seems to exist as to when carp were first introduced into England; but we get evidence from

the 'Boke of St. Albans' published in 1496 that they were known then at any rate, while other ancient writers dealing with him establish his place in our native lakes and rivers somewhere about the same period. They attain a vast age. Buffon telling us that he has seen at Pontchartrain fish of this species which were known to be 150 years old; how this age was arrived at is not very clear, but well authenticated accounts have been from time to time brought forward, proving that they are, under suitable conditions, an extremely long-lived fish. In Prussia and Germany they are cultivated carefully, and there carp of 25 lb. and 30 lb. weight is not of unfrequent occurrence, while in warm climates, India to wit, fish of this species grow to an enormous size, specimens of the family being taken in the tanks and lagoons of 40 lb. to 60 lb. Fancy, brother angler, getting a fellow of this size on a fine gut bottom! Here, a fish of 10 lb. or 12 lb. is accounted a good one, but there is little doubt that in some of the deep inland meres and lakes they grow to a much larger size. I have myself seen in an extensive sheet of water that I had the opportunity of fishing in Hampshire some years ago, fish basking in the weeds on a hot summer's day, that I have little doubt would have run from 15 lb. to 20 lb., and once or twice got hold of one, but never was able to hold him, for he pulled like a donkey, and went straight for the nearest weed-bed, and quietly smashed me up. The rod to be used should not be too long, 12 feet is ample; when it is longer it does but make it more tiring to the man using it, who, I need hardly say, should avoid laying it on the bank as much as possible, particularly when it is remembered that he is on the trail of the "water fox," as old anglers delighted to call our golden friend. This perhaps is the situation. One's arm gets a bit

cramped, and one puts the rod down—tired, perhaps, of a long spell with no signs of a fish—and carelessly, of course, with the handle of the winch on the grass ; then, just as one is putting the vesuvian into the bowl of one's pipe, comes a tug at the top joint ; one goes with a dash at the rod, and waits eagerly for the expected pull. No go ; the golden moment is gone, and the chance of a golden prize into the bargain. The finer the running line the better, consistent with the proper degree of strength that is required, supposing a "bonser" is hooked. When baiting with paste or gentles, triangle hooks, not too large, should be used, and the lead, having the hole through it well bored out, so that the line runs very easily, should work on the silk running line or better still a very fine piece of gimp, in preference to the gut bottom, so that friction of the gut is avoided, as well as any possible obstruction from a knot. Carp will sometimes take worms freely ; large red worms, thoroughly cleansed and toughened in moss, being almost a standing dish, and a bright silver lob is another very attractive bait. Wasp grubs, and the larvæ of the insect in an immature state, are another killing lure. I have taken them with green peas, and I have heard of them taking cherries ; but of all the baits that I have ever tried, commend me to a yellow waxy potato, fairly well boiled, but not so as to be too soft, of course, and with a plentiful ground-baiting of the hole where one intends operating, for a day or two previously, with boiled potatoes and bran, well kneaded and worked up, so that when formed into balls about the size of a billiard ball, they sink at once. The potato should be cut into an oval shape, of the size of a thrush's egg, the gut drawn through its centre by means of a fine baiting needle, and the points of the triangle pushed into the bait until they are fairly

embedded. Now cast out a yard or two beyond where your baited spot is situated, and, when the lead has reached the bottom, draw it towards you, so that the hooks lie clear of the lead and line, and straight from the point of the rod. Then hold the rod, with the top joint pointed directly to where your hooks lie, and lower the point, that the line may be straight through the rings (which, of course, should be standing rings), and directly in a line with the thumb and forefinger of the left hand. By adopting these means, one avoids the fish feeling the pull on the top, which must be felt when the rod is at an angle, and if the line is held very delicately between the fingers, the least motion can be detected. The first indication of a nibble, in nine cases out of ten, will be a tremulous movement, that will, I warrant, send a thrill through the angler's frame; hold the line as you would a gossamer thread. Niggle, niggle, niggle, again it comes; then a little pull, and at last the line begins to sneak through one's fingers. Now's the time! Strike smartly, not too hard, and if you find that you're home, give him another little tug, just to send the hooks well into his leathery mouth; keep a taut line, and humour him nicely for a little, until you find out the calibre of the game you have to kill. Bear this in mind, however, that you have no cowardly foe to conquer. A large carp is a gallant fellow, and will resent any untimely indignity in the shape of early "pully-haulings," by a terrible rush, that may very likely upset all your previous calculations, and free himself at the same moment. Do not, therefore, be in a hurry to get him out—always reflect that, so long as your line is tight, and the hooks hold, he is as much your prisoner as though he were on the bank. If possible, get him away from the hole where you hook him, and play and land him lower down, so as to avoid disturbing others that may be

lying in the same locality, and always keep, from first to last, well out of sight of the water. In pond or lake fishing, much the same tactics may be adopted, except that one may use a much lighter leger lead where there is no stream, and indeed I would not use a lead at all if it were possible to get the line out without it. If float-fishing be the order of the day, the float cannot be too light, and a small quill carrying three or four shot only is to be preferred. The bait should always be well on the bottom. I fish with the baited hook at least six inches on the bottom—and the shot may be placed on the hook-link of gut so that they too rest on the ground, and thus there is nothing of a foreign nature to catch the wary eye of the fish that may be prowling about. Even the gut may be dyed green or of a bluish tint, so as to assimilate as nearly as possible with the tinge of the water. The rod used should be a longer one than the one previously mentioned, for it is a time-honoured maxim in angling for some classes of fish, to “fish fine and far out ;” and the carp is one of them where this maxim should be observed. A good plan, when float fishing, is to have an iron rod rest, or a forked stick, stuck in the ground, so that the rod, in this case, unlike when legering, may be placed in the rest or cleft stick. Throw well out, and, particularly when the water is clear and bright, have no more of the rod than is absolutely necessary projecting over the bank, then sit well away from the water ; don’t move the rod if you see a bit of a nibble, but if the float, after a preliminary cautious dip or two, sails slowly away and out of sight, then get your line taut, and strike, not too hard, however. The remarks I have just made apply more directly to worm fishing, and it is useless to strike when operating with this bait unless the float begins to slide off, for carp suck the bait in very artfully, and if he is not given

time to gulp the whole of the worm, the chances are that you lose your fish, from the fact that by striking too hurriedly you may have only allowed him to get hold of the tail end. When fishing with paste or gentles, and using triangle hooks, I should strike immediately if the float dipped fairly down; for these fish are so crafty and wary that they will suck the whole of the bolus of paste away from the hook, and that being effected quietly sail off. Strike gently, however, and should you not succeed in hooking the fish, let the bait drop quietly again, when it is possible, if he is in a feeding humour, he may have another try. Various grubs and caterpillars, caddis and turnip worms, beetles, and a hook baited with a red worm and tipped with a gentle have been from time to time recommended as super-excellent lures; my experience, however, tells me that if carp will not take potatoes, well-scoured lobes, red worms, or a lively bunch of gentles, they won't take anything, and one might just as well go home and have a rubber of whist and a pipe.

CHUB FISHING.

The chub, another member of the numerous carp family, attracts no inconsiderable share of the angler's attention, and particularly numbering amongst his followers that section who delight in getting hold of something that pulls. Amongst the number is my humble self. I know of no fish that I have had at the end of my line that goes with such a devil of a rattle as a big chub, and as he usually when pricked by a hook bolts with the speed of a rocket for the first stronghold he can get to—sunken roots of trees, or pendant boughs overhanging hollow banks—it requires no little skill to keep the line and tackle out of danger. His

first rush over, however, he is pretty safe; and, unlike the barbel, who fights with dogged pertinacity to the last, quickly succumbs, and with ordinary care is soon come-atable. Common in most of the English rivers, and growing to a large size, the chub, or cheven, affords endless amusement, for he feeds well at times when other fish refuse a bait. In the summer large flies and beetles of various kinds tempt him; while in autumn and winter, cheese, grcaves, lobs, pith from the vertebræ of the bullock, as well as live bait, such as minnows and small gudgeon, attract his attention. It has always been the fashion to speak of him as "the loggerheaded chub," and well-known angling writers have described him as having an ugly misshapen head, but I utterly fail to see this, and, indeed, consider him, when in condition, an exceptionally handsome fish, with a longer body than the carp, large silvery scales, his back of a deep olive green, the belly white, the irides of the eye a shining silver, pectoral fins, large and well developed, of a dusky, yellow hue, ventral and anal fins a pale salmon red, while the tail, slightly forked, is brown, with a distinct bluish line at the extremity. They are frequently taken both in the Thames and Lea, from three to four pounds in weight, it being asserted that specimens from the former river have come to bank of far greater calibre; while upon the authority of Dr. Bloch, we are told that fish of 8 lb. and 9 lb. is no uncommon size in some of the continental waters. The Loddon and Mole hold gigantic fish; from the latter river came the best chub I ever saw in my life. It was taken by my friend, Mr. Callen, of East Molesey—was tempted by a couple of shrimps, and, weighed by myself, bumped down the scale at $7\frac{1}{2}$ lb. Chub usually spawn in the latter end of March, if the weather is open and fine, or in April, and are again in full vigour in June.

No more cautious, timid fish swims than your chub, and I have frequently seen a shoal of them lying near the top of the water, sink slowly down and out of sight, the only thing that I could discover as likely to alarm them being a crow or two winging their way across the stream. Hence the chub-fisher cannot be too cautious and subtle in his operations.

Chub in the summer resort to the deeps, and large still pools overhung by foliage; here they lie, day after day, if undisturbed, watching for grubs and insects dropping from the sheltering trees; and at such places the dibber, with his humble bee in the day-time, or large moth in the evening, kills his fish. In the winter they seek places where high marly banks form the sides of the stream, or deep holes, with a sandy or clayey bottom, afford them good harbourage; and in nooks where this fish are known to resort, they are found at the proper season, year after year. Hence the saying among anglers, "once a chub hole, always a chub hole." They are a restless fish, however, and shift about in the autumn and winter months, when insect diet has failed them, continually seeking fresh ground. It is advisable, therefore, never to stay long in one spot—ten minutes or a quarter of an hour is enough—for if there are fish there and they mean feeding, they will do so at once, or not at all.

For legering for this, and indeed for all other fish, a rod of 12 ft. in length is fully long enough. I don't believe in long rods for general use, and feel assured that if an angler, with a short one, pits his own brains and resources against the craft of the fish he is trying for, he will in the long run succeed. Long rods are cumbersome and tedious to the wielder, and it is only in roach fishing from the bank in a river like the Lea, for instance, where they are practi-

ally of any use—for angling in such a water, and for this specified class of fish they are of course indispensable. I recollect, many years ago now, when my passion for the river-side and the “contemplative man’s occupation” was just as keen, if not more so than now, I had an impression, and I find that young anglers of the present day indulge in the same idea, that fish can only be found in the middle of a river or pond, or so near thereto as one could throw out. Thus I used to perch myself on the extreme edge of the bank, completely forgetting that fish could see me when I could not see them. As a consequence the bag was nearly always lighter at night than in the morning. Now it is different, simply because I reflect, and reflection and the caution that naturally accrues, is in my view the great secret of success. To return to the rod: let it be of cane, light and handy, 12 feet in length and fitted with upright rings, moderately stiff and well balanced. Always avoid a rod that is top-heavy. The winch—and one can hardly improve upon the Nottingham reel for “reel work”—should be capable of holding sixty or seventy yards of fine plaited Derby silk line; some prefer a twist line, I don’t, while the finer the better if the operator has a light hand, and can hold a “big’un” tenderly. Besides which, a fine line requires a far less heavy bullet than a stout one—another advantage—and these requisites obtained, one is ready, so far as rod and line are concerned. Now for the leger bottom; this is an important item, for upon it much of the desired success is likely to attend. Choose it of the finest and roundest natural gut, a yard in length at least (I use them a yard and a half), and always have a length of gimp fitted to them for the bullet to work upon. Other accessories are entirely unnecessary, and the less foreign matter one has, the better. At any

of the first-class tackle shops, these bottoms are to be obtained, stained to any desired shade ; it is therefore obvious that, if an angler is fishing a river where the bottom is composed of deep-coloured marly ooze or clay, a length of gut assimilating as nearly as possible with the ground on which the wary chub are lying, is far preferable to a shiny piece of white gut, which moves about as the stream catches the line and bullet, and can certainly not look like a piece of weed. Look your gut well over before commencing, and reject a bottom that has cracks or flaws. Far better to be particular in the tackle than stand a chance of losing a fish that, if landed and "set up," may, in its case "be a thing of beauty and a joy for ever." If lob worms are the order of the day, use hooks whereon, in lieu of the ordinary length of gut, a small loop of silk is whipped ; they are easily attached to the leger bottom, and do away with the chance of the hook links of gut being stronger or weaker than the remainder of the gut in use. Some have a morsel of bristle whipped on the reverse way from the hook's point ; this certainly prevents the worm from slipping or wriggling down the shank of the hook, and is possibly an advantage, but if chub mean business, they will bolt one's lob before it has the chance of slipping very far down. Being on the bank, keep well out of sight, and avoid shuffling about, or moving unnecessarily. Every movement of the feet causes a certain amount of vibration. and, rely upon it, chub will bolt if they fancy anything is wrong. If you have plenty of lobs, and the stream is not too heavy, throw them in whole, and some little distance above where you are fishing. Cast in down-stream and make sure that your gut bottom lies straight on the bed of the river, by drawing the bullet towards the place where you are sitting. The chub, when he feeds, is nothing like

so distrustful as the carp, therefore the same intent watch is not absolutely needful, and the rod may be placed in the rest or on the bank so long as the line is fairly taut. Given a bit of a tug, up with it instanter, and strike at once, for it is most likely that the fish has taken the bait and gulped it down his capacious throttle. The same tackle may be used in baiting with cheese or greaves, save that the hook should be a triangle, and that of fair size. In fishing with cheese, two or three holes may be baited the night before angling, with some of the most rotten old cheese that can be got at. Samples outside the cheesemongers' shops, smelling strong, full of animal life, and at about 3*d.* a pound, is the correct thing; and a couple of pounds of this aromatic variety worked up roughly with some soaked bread makes a highly seasoned dish of a surety likely to please the palate of the loggerhead, wherever he may be, and keep him hanging about the baited place. Once let him get the full flavour of the sunken mess, there he'll stick until every atom is gone. Touching and concerning the paste for the hook, this cannot be too carefully made, for as cheese having a tendency to harden in the water, it is obvious, that the material should be thoroughly softened and incorporated, so as to do away with this as much as possible. Select rich old Cheshire, oily, and full of unctuous quality, pare away the rind, not too sparingly, so as to get rid of the harder portions, then with a bottle, or a rolling-pin, crush the cheese thoroughly upon a table or flat piece of stone, breaking up every hard bit; when completely rolled out and soft, get a piece of stale crumb of bread—a piece the size of an egg will be sufficient for a good quarter of a pound of cheese—and moisten it thoroughly, then squeeze dry, and with the hands work and mix it up with the cheese—it will take a good half hour to do well; when

finished, put it in a damp cloth for use. At the water-side it will want working up now and again so as to keep it soft and pliable, and when baiting the hook, take a piece of cheese a little bigger than a thrush's egg—the chub has a capacious gullet, and will easily negotiate this—and make a hole in it with the thumb, inserting the triangle ; then pinch it close round the gut, covering the hook completely. By this method the hook lies encased simply by a shell of cheese, which will break with the strike, when the fish takes the bait. If the paste is moulded round the hook in a mass it becomes very shortly a solid body, hard as a bullet, and the chances are that a fish is lost by the bait being pulled out of his mouth, the hooks being unable to break through the bait and penetrate his leathery muzzle. Strike instantly and sharply when a bite is felt ; if the fish is not hooked, drop the bait ; he may try it again, if hungry. If hooked, keep him away from roots and submerged boughs, for once let him get among them, all the king's horses and all the king's men won't save the tackle unless one is very lucky, and if the hooked fish is lost it is all up with that hole for a time, and one might just as well seek fresh pastures.

Shrimps are another bait that at certain times kill chub well, and I prefer the pink to the brown. I always shell them, saving husks, heads and tails, and putting them with a few whole shrimps into some clay for ground bait ; and then three or four of the shelled crustaceans neatly on a small triangle, casting into likely places. Greaves also are better on a triangle than a single hook, and the whitest and softest pieces should be selected. In preparing greaves the cake should be broken up and put in any old vessel with just water enough to cover the contents, and into a slow oven to simmer and stew until the compound is soft.

Never throw much greaves in as ground bait, fish soon sicken of it, so that it should be used sparingly.

A baby frog is the grandest bait in the world for a big chub, just at that doubtful period of his existence when even his mother might feel some pardonable uncertainty as to whether he belonged to her family or not ; but it would occupy too much space to dilate impartially upon frogs and black-beetles, cockchafers and slugs, and the beauties of Nottingham fishing with pith and brains under the boughs ; so that I must even leave all I would say unsaid.

TENCH FISHING.

With regard to angling for tench there is really little to be said. They are so seldom met with in rivers, and are so uncertain in their biting moods, that it would be simply waste of time for an angler to devote much, if any, of his leisure to angling specially for them. One hears every now and then of a good fish that has fallen to a skilled rodster, both in the Thames and Lea. But it usually turns out upon investigation that the capture has been one purely of a chance nature, and that the fish has been taken either by a banksman who was roach-fishing, or, in the Thames more particularly, by some angler who is bream or barbel-fishing, and who gets a cautious preliminary nibble or two, puzzling him for a moment from its being utterly unlike any other bite he has had, and who upon striking when he finds his float sailing off, finds that "the doctor" has taken a fancy to his lobworm. Where, however, it is known that tench have chosen some slow, heavy water, and their habitation is a part of a river, I would always advise those who may have a sufficient stock of patience to devote part of their

time in pursuit of them, to see that their tackle is of good quality and without flaws, for a river tench of any size, and who being hooked gets into anything like a strong current, will try the tackle as much, perhaps, as a barbel, and that is saying a good deal for his fighting powers. Far and away more likely places will be old clay pits, deep ponds, fleets and meres, and the large ornamental sheets of water that are found in many of our large landed proprietors' domains, and where a request for a day's angling rarely meets with refusal if properly preferred. In such a situation, and supposing the water to be fairly free from weeds, or with large open spaces between the weed-grown places, I would recommend that before fishing, the place should be plentifully ground-baited for a night or two previously. If it is intended to angle with worms, chopped lobes should form the attraction, first selecting from the stock gathered, the flat, silvery and medium-sized worms for the hook. Never bait the hook with those dull, leaden-coloured worms, with a red band running round them, and an orange-coloured belly. I don't mean to say that a tench would never take one if offered him, and nicely put on the hook ; but I think the other worm will kill in the proportion of four to one—at least such has been my experience, therefore I think it proves which of the two is the better. If float fishing is preferred it should be as light as possible, for the tench is a shy feeder, and would infallibly leave the bait if he found that he was dragging at a big cork float on the surface. A small swan or porcupine quill is as good as any ; the gut should be fine yet good, the hook No. 7 or 8, fairly long in the shank and round in the bend, the running line of fine yet strong silk—plaited for choice—while the rod need not be longer than is necessary to reach the place selected. If the water be

very weedy and the clear places small and confined, then perhaps a long rod would be serviceable, dispensing with the running line altogether, but taking care that the gut bottom and line at the top-joint be additionally strong. In such a cramped position, should the fish feed and a big one be struck, it will be simply a case of testing the fish and his strength against the tackle; all I can say is, keep him away from the weed-beds, he'll bolt for them like a ferret after a bunny, and if he gets among them—good-bye. The bait should, if possible, touch the bottom, but inasmuch as tench retreats are usually muddy in the extreme—which fact is easily ascertainable by the plummet—it would be useless to put a lively lob well on the bottom, because he would very soon become part and parcel of the mud itself. I have found it a good plan when, as I have said, there are plenty of clear open spaces, and the bottom is sound and hard, to dispense with float, etc., altogether, and first baiting the hook with a picked lob, draw from the reel a sufficient quantity of line to reach the desired spot, and then, coiling this line, let it lie on the bank free and clear of all obstructions. Lay the rod as well on the bank, and take the baited hook in the thumb and fingers of the right hand, cast it out from the hand with a gentle swing, and the line, if sufficiently light and fine (and what big fish can be killed on a fine line if one only knows how to use it), will fly out after the baited hook, which sinks from its own specific weight and that of the worm combined; give it time to find the bottom and then reel up any slack line there may be. Keep the rod down upon the bank, with the winch handles (and the winch for this work must be a Nottingham with perfectly free action) uppermost, and clear of any twigs or other things likely to impede it, and then take a seat well away from the water, keep perfectly still and motion-

less, and await events. A bite is first indicated by a trembling of the line ; give him plenty of time, and presently, if master tench means business, the winch handles begin to slowly revolve and the line to sneak away yard after yard ; then strike, not too hard, for he has a leathery mouth, and the hooks are sure to hold, and the probability is that if he is a good fish there will ensue a "leettle fight " before he caves in. Never be in a hurry when tench-fishing, and the float indicates some hidden attentions—this fish will mumble and suck at your worm or gentles for a long time in some cases, before he finally makes up his mind to do or die—then the float either goes slowly down, and out of sight, or it may rise up, and seem half inclined to topple over, and then move along the surface, or it may be raised up, and laid flat on the water, indicating that a fish has taken the bait, and has risen to the surface—either are critical moments, and one is warranted in striking at once. Sweet paste, made from stale bread-crumbs, and judiciously blended with honey, kills tench well at times, at others they won't look at it. Wasp grubs are another good bait, and caddis worms occasionally make their mark, while gentles are at times taken greedily. Worms, however, clean and well scoured, seem at all times to be the most favourite lure, and although I am aware that many anglers will disagree with me, I prefer the lobworm to any, even to the red worm, or brilliantly striped brandling. Bright, clean and tough, I am inclined to think that nothing beats the lob for big fish, and the bigger the inhabitants of the pool are, the more they seem to like it.

BREAM FISHING.

The fish under notice is tolerably well known to anglers, and yet merits a passing word or two in the matter of description. He grows to a large size, and as he increases in weight becomes a very handsome fellow, requiring no little skill on the part of a fisher to successfully make a large bag. With a high arched back, and deep belly, he is somewhat of a rhomboidal form, his sides being, unless very well nourished, extremely flat in comparison with his great depth. His head is small, with the nose pointed and tapering down to the mouth, which is void of teeth, and not by any means a large one. The eyes are large and full, the irides of a silvery hue, the fins, the dorsal in particular, are small sized, the anal extending from the vent to the root of the tail, which is large, powerful and deeply forked. In colour, bream vary considerably; and there seems to be two distinct classes of the same species, although both inhabit similar localities. The one called the golden, or carp bream, attains a far larger size than his relative, the white bream, the latter never carrying the brilliant bronze tint of his big brother. The golden bream has his back coloured with a deep olive bronze tint, the sides gradually growing lighter in hue as they approach the belly, which is a shining silvery white, the fins of a dusky grey, tinged at the root with the predominant golden cast; the scales in both species are large, round and well developed. Bream are thoroughly gregarious in their habits, herding together in large shoals, and generally seeking the deepest and widest part of a river, where the stream is slow and heavy, and the sides are fringed with beds of reed and rushes. Such situations are always

looked upon as likely habitats for the "flat, unwieldy bream," but it does not follow that there he will be invariably found, for some of the largest fish of this tribe are taken in the Thames immediately in the boil and rapid water of a heavy weir fall. The river just mentioned, the Thames, holds plenty of bream at certain places, and there can be little doubt that the fish attain a very large size. I have taken them myself close upon 6 lbs., and I have heard of them being landed considerably heavier. Halliford, Shepperton, Weybridge and Penton Hook, of the higher sections, and Teddington and Kingston of the lower parts of the river, are all famous bream waters. The Mole again, from its rise to the point where it empties itself into the Thames, nearly opposite Hampton Court Palace, and the Wey, are both celebrated for their abundant supply, while the Medway, at many of its stations, gives the bottom fisher plenty of sport with large specimens of this class. Then further afield, the Ouse, throughout its entire length, is full of them; and the Yare, and the contiguous "broads" of Norfolk literally swarm with bream; while the Trent, at some places, produces large supplies for the Birmingham and Sheffield Angler's delectation. Close home, the Lea holds a few fish in its waters, but they are rarely angled for properly, and hence rarely caught; three fish, however, may be seen at Mr. Benningfield's house, the Crown, at Broxbourne, which were taken by Mr. Bradlaugh at Carthagenia Weir—fruits of philosophy and good angling combined; these three specimen fish weighing together 21 lbs. Then, quite recently, a gentleman, whose name I at the moment forget, but who is, or was, attached to the Conservancy Board of the Lea, caught a splendid bream close upon 9 lbs.; so that it proves that if they are not as plentiful as blackberries in this river, they run large at any rate. The Surrey

and Commercial Docks, formerly open to the hard-working London angler, but now unhappily tabooed, unless at a terribly high price for a season ticket—£5 I am told—holds plenty of them; and the Welsh Harp and Dagenham fishery lakes as well, usually returns a take of these fish to one who knows the peculiarities of each spot, and studying them, takes the trouble to fish with caution, suitable bait and fine tackle. Very much depends upon the water to be fished, upon the method adopted and the description of tackle employed. In the Thames, except at one or two places, where the bank fisher may command one or other of the deep holes which are known to be bream haunts with the leger, it is simply labour in vain to attempt to fish for them from the bank with any chance of making a good catch. They are shy and crafty in the extreme, and take good care to keep well away from the sides of the river—and out in the more fancied security of the deeps ; so that even if the bank-man can throw his leger into the hole, his only chance of success would be at the very earliest peep of “early morn” or at the close of “dcwy eve ;” and these two periods of the day may be taken, from first to last, as the best times to endeavour to seduce our slimy friend into appreciating the flavour of a well scoured lob, or, indeed, any other bait with which one may choose to tempt him. In Thames fishing, then, for bream, it is absolutely necessary to fish from a punt or boat, and for this method of angling a Nottingham rod, with two tops, of 12 or 14 feet in length, is the best that can be used ; they are wonderfully light, and one may fish all day with one of these rods without tiring the arm, no small desideratum in a long day’s work. These rods are besides so nicely adjusted that the change of tops makes a complete change in the character of the rod—with the long and somewhat flexible top, one gets a rod with the

most perfect action for either long corking or the sliding float ; affixing the shorter, and consequently much stiffer top, one gets a tool the very *beau idéal* of what is required for either paternostering or legering ; and, after that, I think I need hardly say more in praise of my favourite, the Nottingham weapon. If the place selected has a bottom tolerably uniform in depth, there is no method more killing than "tight corking," i.e., using a bottom of the finest natural gut, with the shot equally placed along its entire length ; by adopting this method of placing the shot it will be obvious that the line hangs much more true and straight in the water from the extremity of the float than if they were placed all together. The running line, and there should be from 60 to 100 yards on a reel, cannot well be too fine, while the reel itself should be perfectly smooth and easy in its action—in point of fact, so nicely made and regulated that the mere action of the stream on the float, and the weight of the float itself, is sufficient to cause the reel to revolve easily, and without the least stopping or scraping. If the reel acts properly, and the line is sufficiently light, it can be held perfectly taut and straight from the cap of the float to the point of the rod, no matter how long, in reason, the swim may be, and the fish can be struck with almost as great a certainty as the roach fisherman hooks his fish with half a line only of strike line from float to top joint. Five-and-twenty, thirty, or forty yards is no uncommon distance for a swim down from the punt, and the fun that ensues when a three or four pounder is hooked on fine tackle at this distance is no little, rely on't ! The hook used for bream should be size No. 7 or 8, round in the bend, and, if for worm-fishing, long in the shank, so that the worm may be drawn neatly up the shank of the hook, and not hang in loops. Supposing then

that suitable tackle has been rigged up, we will now proceed to the fishing itself. Ground-baiting, whether in river or pond, is essentially necessary for this fish; for as they frequently shift their locale and rove about in search of food, it is obvious that they are likely to be kept together where they find a supply of palatable rations. Now there is nothing that your river bream takes so kindly to as a diet of worms, and where the fish run large, lobes well scoured are a very attractive bait; indeed I don't know anything to beat them for big fish. The hole, or run that is intended to operate upon, should therefore be well baited one or two nights before fishing with a plentiful supply of lobes, either chopped up or thrown in whole? of the two I think the latter is far preferable, and saves a somewhat unpleasant operation. One thing should, however, be borne in mind, that if there is no clay used when ground-baiting, and it is better without it, the worms should be taken sufficiently above the hole, and the set of the current studied to ensure them sinking, and not being swept away from the chosen place. It is an extraordinary fact, yet none the less certain, that these fish will sometimes refuse to have anything to do with a worm that travels down the stream, no matter how neatly or showily put upon the hook, when the self-same bait, stationary upon leger tackle, kills him instantly; and again they frequently reverse their tactics, declining the leger business altogether, yet attacking the moving bait the instant it reaches the bottom. The bream-fisher, bearing this in mind, should, then, never despair of filling his basket if the fish seem at first to be "dead off," but try other methods, and by offering them a suitable bait, he will usually succeed in killing a brace or two of fish, and perhaps a good many more, when, if he had stuck to his original style, he would in all probability have gone home with a

very light basket. In legering much the same tackle may be used as that described in carp-fishing—a fine gut bottom, a bullet no larger than is absolutely necessary to find and hold the ground against the stream, the hook the same as that previously described, allowing the fish a fair time if the bait is a large one, before striking him. A capital bait at times for a bream is a bolus of plain bread paste, made from the crumb of stale, yet perfectly sweet and white bread, just dipped into water, and worked up with scrupulously clean hands until it attains a tough and stiff consistency. This may sometimes be sweetened with a little honey to advantage, although I have usually found that when they are in a paste-feeding humour, the plain kills just as well as the sweet. Paste will not stand a heavy current long, so that the hook should be frequently looked at, and a small triangle will be found more serviceable than a single hook, holding the paste much better together. Gentles, again, sometimes exercise a powerful attraction; they are best used on a diminutive triangle, ground-baiting with plenty of “carrion,” and using liver gentles for the hook. Bream seek the deep secluded parts of ponds and lakes, and thrive amazingly in favourable waters, such as have a bottom of an oozy, sandy nature, and where the sides have an edging of weed-beds, lilies and water-flags. Here, in the hot weather, they will be found rolling and tumbling about in the weeds, to which they resort for shade and shelter during the heat of the day. In some waters that can be fished only from the side, a long rod is really needful, so as to clear the weeds. At all times, however, cumbersome and heavy, a long rod, where running tackle is employed, becomes an abominable nuisance, from the difficulty in unshipping a joint to allow landing the fish. I should, then, always

advise, whenever practicable, the use of a short one—of, say 12 or 14 feet, with strong yet fine-running tackle of plaited silk. When the proper depth has been obtained, a sufficient quantity of line to ensure reaching the desired spot may be drawn from the reel and taken out in a loop from the bottom ring of the rod and the reel itself. It may then, when drawn fairly taut, be hitched over a tiny twig, or a blade of stout grass projecting from the ground, and the piscator, taking up the rod and giving the float and the shotted line a swing in the desired direction, will find that the light line flies easily through the rings after the weighted portion, and, with a little practice, almost any part of a pond may be easily reached. In a gastronomic point of view the bream has always been held up to execration. Here is a recipe for cooking a river fish of, say 3 or 4 pound weight :—Cleanse him and lay him in salt and water one hour ; stuff with a rich veal stuffing and bake him—plentifully anointed with good butter—in a slow oven, until the meat comes easily from the bones. Serve him up, hot and hot, with cayenne pepper and lemon juice. Carpers may say—I don't mean carp-eaters or carp-fishers—that the veal-stuffing, lemon juice and butter, are the only parts of the dish worth going in for ; it may be so, but I have found the fish very toothsome.

DAKE FISHING.

Dace are found in most of our English rivers, streams and brooks, and will thrive well in either swiftly running water, or in slower streams, so long as there is a fresh supply coming from the head or from the feeders running into it. To the beginner in fly-fishing, we have no fish indigenous to our waters that gives such good practice

to the learner as the one under notice, for during the spring and summer months the dace rises greedily at small flies and insects of various kinds, and is besides so brave and dashing in his attempts to escape when hooked upon fine tackle, that he gets the pupil's hand well in for higher and nobler game. He is an extremely handsome fish, and elegantly shaped, the head small, with the irides of the eyes a pale yellow, the body lengthy and the tail well forked ; the scales are much smaller than those of the roach, and have a brilliant silvery gloss predominating over a cast of yellowish green ; the back is of a dusky green tint, the belly white, the ventral, anal and caudal fins of a pale reddish hue. In the Thames they are seldom taken of any great size, but in the Lea, and particularly above Ware and Hertford, they run much larger ; while in the Lark and Linnet—the former a tributary of the Ouse, of Suffolk and Cambridge, the latter another tributary stream joining the Lark near Bury—it is said that they attain a pound or more in weight. Personally, however, I have never seen anything approaching this size, and shall be inclined to take such statements *cum grano*, although Pennant gives an account of one that weighed a pound and a half, and Linnæus says that it grows to a foot and a half in some countries. The most likely localities in which to find these fish is in the vicinity of rapid currents, sharps and eddies ; the point of junction between two streams is another habitat, while mill-races and the tail of a mill-run are nearly always sure finds, and here they will work up among the sharpest streams, and in the froth and foam of the most turbulent looking water. In cold and stormy weather they leave their favourite gravelly scours, and seek deeper and more subtle water, where the bottom is marly or clayey in character, and here they are

more likely to be taken by means of bottom fishing. Spawning somewhere about the middle of March, or the beginning of April, it is a wonderful sight to watch a school of these fish upon the spawning beds, working and burrowing amongst the sand and gravel, in active preparation for the deposition of their ova, and upon favourable ground, countless thousands may be frequently noticed by the attentive observer; while so intent are the little fellows upon the object at issue, that they seemingly take not the slightest notice of lookers on. Always provided they keep tolerably quiet, and don't throw brickbats among them—a little amusement I saw practised some few years ago on the Maidenhead shallows, by some of the thoughtless men who make camping out an amusement upon the banks of the Thames as soon as the sun has fairly made his appearance for the summer season. In bottom fishing for dace, there is little, if any, difference to that practised in roach-fishing; at any rate the same tackle will kill equally well. It is, however, in the autumn months that the best sport can be obtained, when they, like the roach, have retired to the deeper portions of the river. In the earlier periods of the year dace will feed greedily, occasionally upon worms of all kinds, and the little red worm in particular, as well as the larvæ of beetles, grubs, wasps and caddis worms. In the hotter months, such as June, July and August, if the angler chooses to try for them on the bottom, no bait is so killing as gentles, well scoured and cleansed in sand, and thus rendered tough and lasting on the hook. Some pieces of greaves, of which dace are extravagantly fond, are another excellent bait for them, and many an anathema has this fish to put up with from the barbel-fisher when legering with this substance, in return for the multitude of sharp tugging bites—very different, however, to that of a

barbel—that he favours the angler with at such times. A capital plan for their capture when they come upon a barbel swim, is to fit up a small hook upon a length of gut, and so affixed to the leger bottom that it hangs close to the larger lump of greaves destined for the bigger fish—thus, when these little pests, at such times, rush at the big piece of greaves, one or other of their number is certain to swallow the small bit, and come to bag, where one might strike all day at their sharp tugs at the larger baits, without once hooking one of them. It is always a good sign when dace on a sudden cease biting on a barbel swim. Rely upon it, that larger fish have hustled the little thieves away, and that the probabilities are that while barbel or chub are on the bottom inspecting your bait, preparatory to a final smack at it, the dace have risen over them as a flight of wood pigeons will watch a hawk. During the summer, supposing the angler to be bottom fishing, it is always advisable to fish rather off than on the bottom for dace; for, unlike the roach, they seek the swifter runs of water, such as the angle of two sharp streams, or the races of mill-wheels, and there, stemming the current, lie poised and waiting for chance food that may come down. In such a place, where eddies and back currents whirl the waters back and forth in tortuous fashion, drop in the plummet, and set the bait four or five inches from the ground. A light, handy rod is required, a little springy in its action, fine running tackle and a fair sized cork or quill float, well shotted, and yet of such buoyancy as to resist the suction and swirl of the heavy stream; then let the stream take the baited hook—and the lure may be caddis, red worm, or gentles—right down away among the sharpest whirls and eddies. Here lie the dace, and the instant the bait reaches them away goes the float, and good sport ensues at

once, for dace fight hard and pluckily, and upon such fine tackle as this, and in such a boil of water, will not yield till they've had a sharp fight for victory. For its size nothing plunges more violently at first, and proper care should always be taken in striking a fish at such a place, from the extreme probability that a trout or two may be lying there, and that one of the spotted beauties may have bolted your worm, or bunch of caddis or gentles. In ground baiting for dace I know of nothing better than plenty of carrion gentles, obtained from bone boilers' and crushers' places of business. These, mixed with coarse pollard or bran, and put loosely into balls of clay, will be found as useful as anything; but care should be exercised in the quantity given, as dace are greedy feeders at all times, and if they get thoroughly gorged with food, will cease biting at the baited hook, as a matter of course.

As I have already said, no better practice for the embryo trout-fisher can be obtained than fly-fishing for dace. An ordinary trouting rod will do as well as any; the cast should be of the finest gut, and two or three flies may be used tied on hooks of small pattern: when, however, a beginner in the graceful art of fly-fishing is desirous of obtaining instruction and accuracy in throwing a fly, one only is sufficient. Small black and red palmers and black gnats are good and staple flies for dace whipping, and occasionally, if the black flies have a gentle put upon the tip of the hook's point, it seems to possess extraordinary attractive qualities, and the fish will dash at it madly. In lieu of gentles, supposing them to be unattainable, a bit of wash-leather with the point of the hook pushed through it will be found an efficient substitute. The best method of fishing the Thames shallows is to throw from a boat, having a heavy stone, or, better still, a small anchor, so as to effectually

moor the craft whenever a likely spot is reached. The flies may then be cast straight down the stream and to the right and left, and it will be soon apparent to the angler whether dace are on the shallows or no, for if there they will likely enough come with a rush at the flies at once, provided the weather is at all favourable ; if they are not there or none are taken after ten minutes' time, try elsewhere.

Capital sport as is obtained with the artificial, I must confess that I think the practice of blow line fishing will beat it hollow, and, at the risk of repetition, I will suggest that whenever shallows and likely looking scours can be reached from the bank, they should be fished in the following manner:—Use a lengthy, light and stiff rod, with a long line of floss silk, which can be obtained at any of the tackle shops for this particular purpose, and should be two yards at least beyond the length of the rod ; then, with a small hook placed carefully between the shoulders of a bluebottle—at all times a most deadly lure—get the wind at your back, and, sheltered from view by a bit of rising ground, a bush, or the old stump of a tree, let the breeze carry the light floss until it bellies out, clear of the uplifted rod. With the baited hook held between the thumb and finger of the left hand, raise the point of the rod, and at the instant a puff of wind comes, release the fly, gradually lowering the rod until it drops gently and naturally upon the surface of the stream. It sometimes happens, from some unaccountable reason, that dace will not take the fly when upon the surface. Supposing that this occurs and few fish are observed rising over ground where they are known to lie, and those which do rise refuse to take the fly thrown, perhaps, directly over them, put on the hook-link of gut or hair a single shot, and let the insect sink, gently drawing it backwards and forwards to the surface of the

water ; by these means many fish may be captured that otherwise would have gone untouched. The ant fly, a winged insect found in the interior of the anthills, is a splendid natural bait for dace, and Walton thus gives instructions for their capture and subsequent keeping. He says :—" Gather them alive with both their wings, and put them into a glass that will hold a quart or pottle ; first put into the glass a handful or more of the moist earth out of which you gather them, and as much of the roots of the grass of the said hillock, and then put in the flies, gently, that they lose not their wings ; lay a clod of earth over it, and then so many as are put into the glass without bruising will live there a month or more, and be always in readiness for you to fish with. But if you would have them keep longer, then get any great earthen pot or barrel, or three or four gallons, which is better, then wash your barrel with water and honey, and having put into it a quantity of earth and grass roots, then put in your flies, and they will cover it, and will live a quarter of a year—these in any stream and clear water are a deadly bait for roach or dace, or for a chub." So far as culinary properties are concerned, the "silvery dace" has little, if anything, to recommend him, although when fried, crisp and brown, in good oil or lard, and eaten in lieu of anything better, with the appetite engendered by a long ramble, rod in hand, by the brink of some sparkling streamlet, he is not to be despised ; and I can well recollect on one occasion, when cold, wet, and hungry, I got back to a little village "pub.," at which I had engaged a bed for the night, I was met with the comforting assurance, that save some rusty bacon, and cheese like soap, there was nothing eatable in the house. I had, however, some three dozen splendid dace, and these were forthwith consigned to the kitchen for my supper ; presently

they appeared, crisp and hot, and with brown bread and butter, pepper, and salt, they made an appetising and savoury meal—better than sprats, at any rate. Carefully wiped dry, and placed in methylated spirits in an air-tight jar, they will keep wonderfully well and make grand baits for winter jack spinning.

LITERATURE
OF
SEA AND RIVER FISHING.

BY
J. J. MANLEY, M.A.,
AUTHOR OF 'NOTES ON FISH AND FISHING,' ETC., ETC.

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INTRODUCTION.

THOUGH this Handbook far exceeds in length all the other members of that large family to which the Fisheries Exhibition has given birth, it cannot pretend to traverse *thoroughly* all the ground indicated by its title. The Literature of Sea and River Fishing is so extensive, that within the present compass only a comparatively brief survey can be essayed; and this must be mainly confined to the literary productions of our own country. Even the names of many English authors must necessarily be omitted, and the chief of them only find a place.

Necessarily, too, the literature of Freshwater Fishing will take up by far the greater portion of the space at command, as books on Sea Fishing are limited in number, and generally speaking of a purely technical or commercial character.

Criticism has not been indulged in to any great degree in the following pages, as the Handbook is principally intended to be a work of "reference," and something in the way of a "guide" to those who may desire to form a general idea of the extent and character of our angling literature.

The quotations introduced may strike some readers, who are more or less familiar with the subject, as somewhat "hackneyed"; but necessarily they are so, because they

are the most appropriate and best illustrative of the matter in hand, just as the "beaten paths" of travel are "beaten" because they are the most interesting and striking. A considerable portion of the quotations is from authors of early or comparatively early periods, whose works are not so easily accessible to general readers as are those of more modern date.

Among the books to which the writer is indebted are those mentioned towards the end of the first chapter; but he would specially acknowledge the invaluable assistance of the *Bibliotheca Piscatoria* recently published. A longer and fuller chronological survey of piscatory, and especially of purely angling literature than that which is here offered to angling and other readers, has not, he believes, been hitherto attempted; and, without the aid of the volume just mentioned, what has been achieved would have been almost impossible.

The labour has not been a slight one; and owing to the thousands of references it has involved, many mistakes in names, dates, and other details may have been made. For these he pleads indulgence at the hands of his readers; and concludes these preliminary remarks with the hope that this little book, like the historic cod-fish caught in Lynn Deep, in 1626, with three literary treatises in its stomach, and served before the Vice-Chancellor at Cambridge, will be found at least in some degree to contain "good learning and entertainment."

LITERATURE

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SEA AND RIVER FISHING.

CHAPTER I.

THE BIBLIOGRAPHY OF FISHING LITERATURE—CATALOGUES — LIBRARIES, ETC. — AUTHORS ON THE BIBLIOGRAPHY OF FISHING.

THE bibliography of Sea and River Fishing, and especially of the latter, in itself covers such an enormous field that only a brief glance at it is here possible.

The various "Catalogues" of books which have from time to time been published, as containing all or most of the known works on piscatory subjects, first claim attention. For several generations bibliophilists and bibliographers—several of whom have had more or less interest in piscatory pursuits—have been very busy in their researches into angling literature, and the catalogues of such literature have gradually been growing in magnitude and bibliographical importance. The last output of labour from this literary mine has been the *Bibliotheca Piscatoria* by Messrs. T. Westwood and T. Satchell, a *magnum opus* in every sense of the words, and in itself a history of angling literature. From this it may be gathered that there are in existence about a score of general catalogues of books relating to

fishing and fish, of which a large proportion deal almost exclusively with the subject of angling. One Rittershusius, as far back as 1597, in the Prolegomena of an edition of Oppian, gives a *Catalogue of those who besides Oppian have written something about fish*; and then, after a long gap, we have, printed at Altenburg in 1750, Kreysig's list of ancient writers on hunting, fishing, and other rural amusements. Enslin followed in the same line in 1823, and Engelmann ten years later; both their works being published at Berlin. In 1842 Schneider published, also at Berlin, a continuation of the labours of the two authors last mentioned. But of continental contributors to this branch of literary knowledge D. Mulder Bosgoed, librarian of the Rotterdam Library, stands foremost. He published his *Bibliotheca Ichthyologia et Piscatoria* in 1874, a work of great comprehensiveness and accuracy, which, up to its date, is a very complete bibliography of angling, and contains notices of books on every conceivable subject connected with fish and fishing, and especially of those published on the Continent.

But it is with the piscatorial bibliographers of our country that we are more immediately concerned. Several of these to a great extent confined themselves to compiling catalogues of books on angling proper, but others have taken a more comprehensive line. In an interleaved copy of C. Bowlker's (of Ludlow) work on angling (1806) was found a MS. *List of Angling Books*, by — White of Crickhowell, whose library was dispersed by auction about the year 1806; and this is probably the first catalogue of its kind made in this country. It is now in the Denison collection, but is of no great intrinsic value. The first of any real importance, entitled *A Catalogue of Books on Angling; with some brief Notices of several of their Authors*, compiled by Sir Henry Ellis, was published in

1811. It contained a list of between seventy and eighty works; and, aided by a revised copy with MS. additions (now in the Denison collection), Mr. Pickering, in 1836, published his *Bibliotheca Piscatoria*, increasing the number of works to 180, with an intimation that his catalogue would "be found more extensive than any hitherto published." J. Wilson, brother of Professor Wilson of the "Noctes," published a catalogue in 1840, but it contained only 100 works, as he confined his enumeration very strictly to those which dealt only with angling. The next great advance in piscatorial bibliography was made in 1847 by the Rev. G. W. Bethune, who, though hailing from the United States, we must for the nonce consider an Englishman. In his edition of Izaak Walton he gives a *List of such Works as relate to Fish and Fishing*; and these number 300, exclusive of those on ichthyology, but inclusive of Greek and Latin authors who give descriptions of fishing, some of which will be quoted in the next chapter. The next important catalogue is that appended by Mr. J. Russell Smith, the publisher of Soho Square, to Blakey's *Angling Literature* in 1856. It was professedly based on the catalogues above mentioned, and excluded works "which only treat incidentally on angling;" but it claimed to be "a complete list of English writers on ichthyology." The number of works mentioned is 264. By the way, it may here be noted that amongst the books on angling belonging to the writer of these notes, he has a reprint of the *Angler's Progress*, by H. Boaz, written in 1789. This reprint was published by J. H. Burn, of Maiden Lane, in 1820; and in it is the following advertisement: "Preparing for the Press, and speedily will be published, *A Bibliographical List* of all the books written either for the improvement in or that are descriptive of the Art of Angling." The writer has

never seen any notice of the actual publication of this "List," and probably it was never printed. Mr. John Bartlett, of Boston, U.S., has published a most interesting catalogue of his own valuable collection of books on fish and fishing.

We now come to what may be called a new epoch in the history of angling catalogues. In 1861, Mr. T. Westwood—who wields the fishing-rod as ably as he does the pen—presented the literary and angling world with *A New Bibliotheca Piscatoria; or a General Catalogue of Angling and Fishing Literature, with Biographical Notes and Dates*. This was a more ambitious attempt in its line than any which preceded it, and showed a marked advance in its field of research. The author laid the literature of all lands under contribution; and it was to his labours that Herr Bosgoed, before mentioned, was to a very great extent indebted, as he himself acknowledges, in the compilation of his catalogue, in which nearly 600 English works are enumerated.

But it would be superfluous to dwell on the contents of Mr. Westwood's book, as the new and long-expected *Bibliotheca Piscatoria*, already referred to, the joint work of Mr. Westwood and Mr. T. Satchell, has been published within the last few months. As Mr. Westwood's previous book, like Aaron's rod which swallowed up the serpents of the Egyptian magicians, had swallowed up all previous catalogues, and had in turn been assimilated by Herr Bosgoed, so now the last *Bibliotheca Piscatoria* has incorporated all its predecessors in this and every other country. It is certainly one of the most interesting and masterful works in the whole range of bibliographical literature; and though of necessity, when we consider its subject-matter, there must still remain *addenda et corrigenda*, it may be

fairly said to be as complete as it could well be made, its authors having spared neither time nor pains to perfect what has evidently been to them a real "labour of love." Its publication has been most opportune at a time when fish and fishing have become subjects of special interest, and anglers, from the aristocratic capturers of the lordly *salmo salar* down to the humble *pêcheurs à la ligne*, are rightly called "legion." "*Piscatoribus sacrum*," inscribed by Cotton over his fishery-house on the Dove, might be the appropriate motto of this book; as anglers will find within it interest and instruction to the full, while its purely literary value is almost inestimable from the wealth of biographical notes, pithy criticisms, and of quaint and piquant quotations scattered throughout its pages. As regards its actual contents, suffice it to say that, compared with Mr. T. Westwood's *Bibliotheca*, a small duodecimo volume of 82 pages, this is a large octavo of 397. That enumerated 600 works, but in this, as may be learned from the preface, there are 3158 editions, and reprints of 2148 distinct works registered, including contributions from "far Cathay." Of these 2465 have been personally inspected—1685 in the Denison collection, 482 in the British Museum, and 348 in other libraries. The Parliamentary papers on fish and fishing, which have been included, amount to 727, together with the titles of 341 Acts of Parliament; and a separate and exhaustive list is also added of works on Pisciculture. This will give some idea of the marvellous store of piscatory information contained in, or suggested by, the volume, which has been well and by no means hyperbolically described as a "hagiography for the enthusiastic followers of Walton; a substantial help to the bibliographer; a series of finger-posts by the side of English history to guide the curious student of diversions

which found favour with our forefathers; an amusement for the idle angler as he notes the names of those distinguished of old in his craft; and a veritable delight to the scholarly fisherman." In a word, it is a literary treasure of which not only anglers but the nation may be justly proud; and which, though only nominally a "catalogue," is a most valuable addition to the Literature of Sea and River Fishing.

It may be here mentioned that Professor Brown Goode, who has so ably represented the United States Section at the Fisheries Exhibition, has for some years been engaged in the compilation of an elaborate bibliography of ichthyology, fisheries, and fish culture, which will doubtless prove of great value to all interested in fish and fishing in all parts of the world.

In addition to the general catalogues which are given in the *Bibliotheca Piscatoria*, there is a very interesting list of over twenty "sale" catalogues, in which books on angling are a special feature. Most of these sales were conducted by the well-known firm in which the name of "Sotheby" occurs, and they stretch over a considerable number of years. Among them is the notice of the sale, in March 1854, of the "valuable and unique private library of Mr. W. P. [William Pickering, before mentioned], consisting of... works on angling, embracing the first five and almost every other edition of Izaak Walton's *Complete Angler*, and also the works of all his favourite authors." Also the notice of the sale, in July 1869, of the library of Sir H. E. Ellis, above mentioned. In some cases the price, which rare editions of Walton and other angling authors fetched, is given; as, for instance, £92 for an illustrated edition of Walton and Cotton, published by Pickering, and £27 for a copy of the fourth edition of *Secrets of Angling*, by J. D., at

the sale of the Rev. F. Corser's library in 1869; £63 for an illustrated Walton at the sale of W. S. Higgs's library in 1830; and £40 for a Dr. Gardiner's *Booke of Angling or Fishing* (1606), at the sale of Mr. Lynch Cotton's collection in 1856. Dr. Dibden, in his *Bibliomania*, rightly says that "catalogues are to bibliographers what reports are to lawyers—not to be read through from end to end, but to be consulted on doubtful points." When priced, and with purchasers' names, their importance, both as standards of value and means of tracing the proprietorship of rare and curious books, is sufficiently obvious. The present seems to be an age of *Bibliothecas*; and it may be incidentally mentioned that among recent productions of this character the *Bibliotheca Nicotiana*—'A Catalogue of Books about Tobacco'—which mentions over 400 works of various kinds, and was privately printed in 1880, in connection with Mr. Bragge's collection of books and objects connected with tobacco, is almost as great a success as the *Bibliotheca Piscatoria*.

Speaking of piscatorial libraries, the authors of the *Bibliotheca Piscatoria* acknowledge their indebtedness to several private collections, including those of Mr. Joseph Grego, and Mr. Alfred Denison of Albemarle Street. The former is a large collection, principally of old English books, many of them very scarce, which had taken fifty years of patient labour to collect. Anglers and bibliophiles of this country will regret to hear that they have recently found a new owner in the United States, whither so many piscatory libraries, or the pick of them, are constantly making their way. The library of Mr. Denison, of Albemarle Street, access to which the writer most gratefully acknowledges, may truly be said to be unique, both for the number and value of its books on angling, and

indeed on all matters connected with fish and fishing. It numbers about 3,000 volumes, and yet does not contain two-thirds of the works (or rather, editions) mentioned in the *Bibliotheca Piscatoria*. It is hardly necessary to enlarge on the enthusiastic devotion and the long purse required to form such a library, or on its literary value, as it is only in such a collection that the most rare of angling books can be consulted. Collectors now sigh in vain for such volumes, and hunters of old bookstalls and other places which suggest the possible presence of literary treasures have very great difficulty in finding old angling books. The value of these is constantly rising as the search for them increases, and bibliomania becomes more and more of an endemic. Recently the writer considered himself fortunate in picking up one of the volumes by G. M. (Gervase Markham), dated 1653, which includes a dissertation on fishing. Several works and their different editions by that author are not specially scarce; yet the second edition of his *Young Sportsman's Delight*, &c., though imperfect, is now worth as many pounds as the first sold for pence in 1712. The only perfect copy known to be in existence is that in the Denison library. Many of the works in this grand collection are almost priceless. Among others there are two editions of J. D.'s *Secrets of Angling*, of the second and third of which there are no other copies. When these were sold at Prince's Sale in 1858 they fetched £6 and £3 14s. respectively; but it would probably require two 0's added to the 6 to represent the pounds they would realise now if offered to public competition. Mr. Denison once missed another valuable edition of J. D.'s *Secrets*; and only an enthusiastic collector can sympathise with the regret he feels at letting slip a chance which may never offer itself again. Only twice in this

century has a copy of Dame Juliana Berner's *Boke* been offered in an auction-room. A well-known dealer in such literary pearls of great price secured one last year for 600 guineas. Mr. Denison has since become the happy possessor of the other in exchange for £450.

One more very interesting work in the library we must briefly glance at. It was privately printed for Mr. Denison himself in 1872, and only twenty-five copies were struck off. It is entitled, *A literal translation into English of the earliest known book on fowling and fish, written originally in Flemish, and printed in the year 1492.* The *Boecxken* was printed (black-letter) by Matthias van der Goes, but also contains the printer's mark of Godfridus Bach, who married Van der Goes' widow. It contains twenty-six chapters of a very few lines each, in eight leaves, with six woodcuts, and gives recipes for artificial baits, unguents, and pastes, and the periods at which certain fish are "at their best." In date it thus has the priority of the *Book of St. Albans*, as far as fishing goes.

And now we must reluctantly leave this storehouse of literary treasures, so admirably bound and arranged, in their resting-places, and so lovingly cared for and guarded. *Habent sua fata libelli*; and if priceless tomes, which receive greater attention than even royal nurselings, have any feelings, they must rejoice at having found such a home as that in Albemarle Street, where they are the very joy of the soul of their possessor, and we hope safe for a very long time to come from the ups and downs of the famous black-letter volume of Dame Juliana Berners, as told in Mr. Blades's charming *Enemies of Books*.

It is very difficult to make an accurate statement as to the number of books in existence on angling "pure and simple," as so many works in a greater or less degree

include cognate matter. The *New Bibliotheca Piscatoria* of Westwood (1861, and Supplement, 1869) claimed to "include 650 distinct works on the sport" of angling; but no statement appears to be made on this point by the authors of the *Bibliotheca* of the present year. Mr. Charles Estcourt, F.C.S., a member of the Manchester Anglers' Association, in a most interesting paper on the "Bibliography of Angling," read before the members, and published in *Anglers' Evenings*, says that "the mother-country possessed in 1861 no less than 470 works upon fish and fishing"; and that the various countries of the world contributed to piscatory literature, as regards the number of works, in the following order:—Great Britain, Germany, France, America, Italy, Holland, Denmark, Sweden, Spain, and Norway. Also, with a view to show the literary position of each of the more prominent angling countries, he gives the following table as the result of an analysis of publishers' lists and catalogues up to the month of September 1879:—

	Britain.	Germany.	France.	America.
Real angling works . . .	411	64	41	12
Natural history, which in- cludes ichthyology, pisci- culture, &c.	50	18	15	3
Poetry and rhyme . . .	37	..	..	..
Reports	59	6	4	..
Total	557	88	60	15

In this list, under the name of each country, are included only those books which are printed in the language of that country. The grand total is 720, of which Great Britain contributes more than three times as many as the other countries put together; thus testifying to the fact that she is the home of, and great international instructress in, the "gentle art." But after all, notwithstanding the above

figures and statements, we do not seem to possess a really accurate statement as to the relative number of books on angling "pure and simple," and on other piscatory subjects, which have up to the present time been published in this and other countries.

This chapter may perhaps be appropriately concluded with the mention of one or two treatises that deal with the subject in hand, so that readers who are specially interested in piscatorial bibliography may know where to find fuller information, and very many interesting facts connected with it, which the present limitation of space renders it impossible to touch on. In addition to the "catalogues" and other works above referred to, such as Blakey's *Angling Literature* (J. R. Smith, Soho Square), which, by the way, has many inaccuracies scattered about its pages, and Mr. Estcourt's paper in *Anglers' Evenings* (Abel Heywood, Manchester), may be mentioned an erudite and charming little volume by Mr. Osmund Lambert, entitled *Angling Literature in England* (Sampson Low, Marston & Co., London), which briefly surveys the whole of angling bibliography. Among articles of considerable length which have appeared in current literature during the last few years, the reader may be referred to *The Fly-fisher and his Library*, by H. R. Francis, which appeared in the "Cambridge Essays" in 1856 (J. W. Parker & Son, London), most pleasant literary chit-chat, but necessarily somewhat discursive and limited in its range; and to "The Angler's Library" in the July number of the *Edinburgh Review* of the current year, wherein will be found much curious and solid information, as well as light and entertaining reading. *Blackwood* and other magazines have also of late years contained more or less lengthy notices on the bibliography of fishing; and the volumes of *Notes and Queries*, and *The Angler's Note-Book*

(Satchell & Co., London), may be consulted with pleasure and profit. Dr. Badham's *Ancient and Modern Fish Tattle* is another book—one of the most interesting ever written on fish and fishing—which abounds with notes on piscatory bibliography.

CHAPTER II.

AUTHORS ON SEA AND RIVER FISHING, ETC., BEFORE
THE INTRODUCTION OF PRINTING INTO ENGLAND,
A.D. 1474.

IT is difficult to say when fishing came to be practised by the ancients as an amusement. Of course it was first resorted to, both by means of nets and of hooks and lines, for the purpose of procuring food. But, doubtless, in very early times, what seems to be the instinctive desire of man to capture animals *feræ naturæ*, led him to pursue fishing as "a sport," and not merely for "the pot"; and many ancient coins, gems, frescoes, mural inscriptions, and other "antiquities" preserved to the present day, bear testimony to this fact, "the angle" being frequently represented. Certain it is, too, that the Greeks, Romans, and Egyptians, during what may be called the historic period, pursued angling as a pastime. We should naturally, therefore, expect that ancient writers would allude to, if not compose treatises on, fishing from both the above points of view, and especially from that of "sport," as being more interesting and giving wider scope for descriptions both in prose and verse.

Athenæus—called by Suidas *γραμματικός*, a term which is best rendered into English as "a literary man"—who wrote in the middle of the third century, and whose pet subjects seem to have been grammar and gastronomy, cites in his writings no less than 1,200 separate works and 800 authors, and of the latter the names of a very large number are given in his *Deipnosophistæ* ("Banquet of the

Learned ") as those of authors who had written on fish and fishing. The great majority of their compositions are unfortunately lost to us, but their names are a testimony to the abundance of ancient literature of the net and angle.

But the words "ancient" and "literature" are very comprehensive, and cover a very wide field ; and it may be a question as to how far authors who only incidentally make mention of, or very briefly describe, fishing of various kinds, should be included among contributors to angling literature. Enthusiasts in this matter claim among them the authors of several books in the Bible, such as the author of the Book of Job, the prophet Amos, Habakkuk, and Isaiah, the prophecy of which latter concerning the destruction of Egypt, Bishop Lowth has thus translated :—

"And the fishes shall mourn and lament ;
 All those that cast the hook in the river,
 And those that spread nets on the surface of the waters, shall
 languish ;
 And they that work the fine flax shall be confounded,
 And they that weave net-work ;
 And her shores shall be broken up ;
 Even all that make a gain of pools of fish."

But the Biblical notices of fishing are really only evidences of the antiquity of the practice, and of the "engines" used in its prosecution. Herodotus is claimed as a piscatory author, because he tells us of the fisheries of the Lake Mœris ; and of course Homer is pressed into the service in consequence of his several allusions to angling. In the 16th *Iliad* (408), for instance, reference is made to hook and line fishing, and the passage has been rather freely translated thus :—

"As from some rock that overhangs the flood
 The silent fisher casts the insidious food ;
 With fraudulent care he waits the finny prize,
 And sudden lifts it quivering to the skies."

In the 12th *Odyssey* (251) "a very long fishing-rod" is spoken of; and in a passage a little further on the companions of Ulysses resort to fishing "with crooked hooks"; and yet another passage refers to the use of pieces of bullock's horn in fishing, which, by the way, does not mean that the hook was made of this material, but that the piece of horn was slipped down the line to prevent the fish biting through it. The Greek tragedians frequently allude to fishing. Aristotle shows a wonderful knowledge of fish, and in his *Animalia* recognises 117 different kinds. Theocritus, the Sicilian, who flourished about 270 B.C., and of whose *Idylls* there are several English translations, may fairly claim rank as an ancient piscatory poet. In his 21st Idyll a fisherman is represented as recounting a dream of the previous night—

"Methought I sat upon a shelfy steep,
And watch'd the fish that gamboll'd in the deep."

A huge one takes the "bait *fallacious*, suspended from his rod"; and then is described the "playing" of the fish, as best it could be played in an era before winches and running lines were thought of:—

"Bent was my rod, and from his gills the blood
With crimson stream distain'd the silver flood;
I stretch'd my arm out lest the hook should break—
The flesh so vigorous, and my hook so weak!
Anxious I gaz'd; he struggled to be gone:
You're wounded—I'll be with you, friend, anon—
Still do you tease me?—for he plagu'd me sore.
At last, quite spent, I drew him safe on shore,
Then graspt him with my hand, for surer hold:
A noble prize, a fish of solid gold!"

This is rather a poor translation, but it will answer its purpose. Perhaps that by Chapman (Bohn, 1853) is the best.

Passing on to later times, we have Virgil in his *Georgics* singing,

“How casting nets were spread in shallow brooks ;
Drags in the deep, and baits were hung on hooks.”

And after the Christian era we have Ovid entering the lists of angling literature, and telling us in his *Ars Amatoria* how

“The wary angler in the winding brook,
Knows what the fish and where to bait his hook ;”

and how he plies “his *quivering* rod.” In his *Halieuticon* (if the fragment be rightly credited to him, which some critics question) he gives us much genuine angling information, and amusing notices of the expertness of different fish in escaping from the angler’s hook. Pliny shows himself a learned ichthyologist, and is the first Latin poet who makes even cursory mention of the king of the Salmonidæ (*S. salar*) as frequenting rivers in Aquitaine. He also gives many most interesting accounts of the modes of capture of various fish. Here is one of the capture of the Anthæa, which is quaint in itself, and quaint in the words of Ph. Holland’s translation :—

“When the time serveth there goeth forth a fisher in a small boat or barge, for certaine daies together, a prettie way into the sea, clad alwaies in apparell of one and the same colour, at one houre and to the same place still, when he casteth forth a bait for the fish. But the fish anthæus is so craftie and warie, that whatsoever is throwne forth hee suspecteth it evermore that it is a meanes to surprise him. He feareth therefore and distrusteth ; and as he feareth, so is he as warie ; until at length, after much practice and often using this device of flinging meat into the same place, one above the rest groweth so hardy and bold as to bite at it. The fisher takes good mark of this one fish, making sure reckoning that he will bring more thither, and be the meanes that he shall speed his hand in the end. At length this hardie

capitaine meets with some other companions, and by little and little he cometh every day better accompanied than other, until in the end he bringeth with him infinite troupes and squadrons together, so as now the eldest of them all (as craftie as they bee) being so well used to know the fisher, that they will snatch meat out of his hands; then he, espying his time, putteth forth an hook with a bait, and speedily with a quick and nimble hand whippeth them out of the water, and giveth them one after another to his companion in the ship—who ever, as they be snatched up, latcheth them in a coarse twille or covering, and keepes them sure ynough from either strouling or squeaking, that they should not drive the rest away. The speciall thing that helpeth this game and pretie sport is to know the capitaine from the rest, who brought his fellowes to this feast, and to take heed in any hand that he be not twicht up and caught; and therefore the fisher spareth him, that he may flic and goe to some other flocke for to traine them to the like banket. Thus you see the manner of fishing for these anthia.

Plutarch also tells us a good deal about fish and fishing, and relates the well-known story of the angling match between Antony and Cleopatra, which makes as certain an appearance in every book on angling, as does Macaulay's New Zealander on the ruins of London Bridge in the work of every writer who can possibly squeeze him into his production. Martial shows us that the Romans of his time knew something of fly-fishing, by asking—

“Who has not seen the scarus rise,
Decoy'd and kill'd by *fraudful* flies?”

But we learn from Ælian, a contemporary of Martial, at the beginning of the 2nd century, that this art was known far away from Rome. In Book XV., Ch. I., of his *De Animalium Natura* he says (according to the translation from Schneider's edition given by Mr. Lambert):—

“I have heard of a Macedonian way of catching fish, and it is this: between Beroica and Thessalonica runs a river called the

Astracus, and in it there are *fish with spotted (or speckled) skins*; what the natives of the country call them you had better ask the Macedonians. These fish feed on a fly which is peculiar to the country, and which hovers over the river. It is not like flies found elsewhere, nor does it resemble a wasp in appearance, nor in shape would one justly describe it as a midge or a bee, yet it has something of each of these. In boldness it is like a fly, in size you might call it a bee, it imitates the colour of the wasp, and it hums like a bee. The natives call it the Hippouros. As these flies seek their food over the river, they do not escape the observation of the fish swimming below. When then a fish observes a fly hovering above, it swims quietly up, fearing to agitate the water, lest it should scare away its prey, then coming up by its shadow, it opens its jaws and gulps down the fly, like a wolf carrying off a sheep from the flock, or an eagle a goose from the farmyard; having done this it withdraws under the rippling water. Now though the fishermen know of this, they do not use these flies at all for bait for the fish; for if a man's hand touch them, they lose their colour, their wings decay, and they become unfit for food for the fish. For this reason they have nothing to do with them, hating them for their bad character; but they have planned a snare for the fish, and get the better of them by their fisherman's craft. *They fasten red (crimson red) wool round a hook and fit on to the wool two feathers which grow under a cock's wattles, and which in colour are like wax.* Their rod is six feet long and the line is of the same length. Then they throw their snare, and the fish, attracted and maddened by the colour, comes up, thinking from the pretty sight to get a dainty mouthful; when, however, it opens its jaws, it is caught by the hook and enjoys a bitter repast, a captive."

It may be taken for granted that these "spotted" fish were some kind of trout, or at least members of the *Salmonidæ* family, who are still so open to having a rise taken out of them by the "fraudful fly." Ælian also describes minutely a variety of methods of fish capture, and among them a very singular mode of taking eels,

which is a much more ingenious device than the modern practice of "sniggling" with a mop of threaded lob-worms. He says :—

"The artful eeler pitches upon a spot favourable for his purpose at the turn of a stream, and lets down from where he stands, on the high bank, some cubits' length of the intestines of a sheep, which, carried down by the current, is eddied and whirled about, and presently perceived by the eels, one of whom adventurously gobbling some inches at the nether end, endeavours to drag the whole away. The angler, perceiving this, applies the other end, which is fixed to a long tubular reed serving in lieu of a fishing-rod, to his mouth, and blows through it into the gut. The gut presently swells, and the fish next receiving the air into his mouth, swells too, and being unable to extricate his teeth is lugged out, adhering to the inflated intestine."

Ælian also speaks of the *Thymalus*, which we may almost certainly take to be the grayling, as he assigns it to the rivers Ticeno and Adige, in which it still abounds; the name itself is still associated with the grayling, which has always been considered to emit a thyme-like fragrance; and the fly, in accordance with what Ælian says, is its favourite food.

A voluminous writer on fish and fishing, who chronologically next presents himself for mention is Oppian, who was born in the year 183. His chief work was his *Halieutics*, a poem of five books in Greek hexameters, which he is said to have publicly recited in a theatre. A very fair translation of it is that of Diaper (not Draper, as frequently given) and Jones (Oxford, 1772). Many of the quotations from his writings, in their English form, are well known to all readers of books on angling; but, though hackneyed, a few of them must be here introduced. The modern angler cannot fail to enter into their spirit, and feel that the

fishermen of old were of the same fraternity as "brothers of the angle" now. This is how Ælian divides fishermen into classes :—

"By those who curious have their art defined,
Three sorts of fishers are distinct assigned ;
The first in hooks delight, here some prepare
The angler's taper length and twisted hair ;
Others the tougher heads of flax entwine,
But firmer hands sustain the sturdy line ;
A third prevails by more compendious ways,
While numerous hooks one common line displays."

The following is a capital rendering of a famous passage :—

"A bite! Hurrah! the length'ning line extends,
Above the tugging fish the arch'd reed bends ;
He struggles hard, and noble sport will yield,
My licge, ere wearied out he quits the field.
See how he swims up, down, and now athwart
The rapid stream—now pausing as in thought ;
And now you force him from the azure deep ;
He mounts, he bends, and with resilient leap
Bounds into air ! There see the dangler twirl,
Convulsive start, hang, curl, again uncurl,
Caper once more like young Terpsichore
In giddy gyres above the sounding sea,
Till near'd you seize the prize with steady wrist,
And grasp at last the bright funambulist."

Here is another :—

"The fisher, standing from the shallop's head,
Projects the length'ning line and plunging lead,
Gently retracts, then draws it in apace,
While flocking anthias follow and give chase
As men their foe, so these pursue their fate,
And closely press the still receding bait.
Nor long in vain the tempting morsel pleads,
A hungry anthia seizes, snaps, and bleeds ;
The fraud soon felt, he flies in wild dismay,
Whiz goes the line—begins Piscator's play !

His muscles tense, each tendon on the rack,
Of swelling limbs, broad loins, and sinewy back.
Mark yon fine form, erect with rigid brow,
Like stately statue sculptured at the prow;
From wary hand who pays the loosening rein
Manœuvring holds, or lets it run again !
And see ! the anthia not a moment flags,
Resists each pull, and 'gainst the dragger drags ;
With lashing tail, to darkest depths below
Shoots headlong down, in hopes t' evade the foe.
' Now ply your oars, my lads ! ' Piscator bawls ;
The huge fish plunges—down Piscator falls !
A second plunge, and, lo ! th' ensanguined twine
Flics through his fissured fingers to the brine.
As two strong combatants of balanced might
Force first essay, then practise every sleight,
So these contend—awhile a well-matched pair—
Till frantic efforts by degrees impair
The anthia's strength, who, drain'd of vital blood,
Soon staggers feebly through the foaming flood,
Then dying, turns his vast unwieldy bulk
Reversed upon the waves, a floating hulk.
Tow'd to his side, with joy Piscator sees
The still leviathin ; still on his knees,
With arms outstretch'd, close clasps the gurgling throat,
Makes one long pull and hauls him in the boat."

There is a true piscatorial ring about these lines. So there is in the following, which describes the troller making ready his line for the capture of sea fish, much after the fashion of modern trollers in fresh water, with a dace or gudgeon on their gorge-hook :—

" He holds the labrax, and beneath his head
Adjusts with care an oblong shape of lead,
Named from its form a dolphin ; plumb'd with this
The bait shoots headlong through the blue abyss.
The bright decoy a living creature seems,
As now on this side, now on that, it gleams,
Till some dark form across its passage flit,
Pouches the lure, and finds the biter's bit."

Oppian, however, recommends as a bait a living labrax, when one is to be got. Here is an account of how sargues or sargs (a species of *Sparidæ*) were captured in ancient days. The biographers of these fish say that the males are extremely uxorious, and fortunately are able to obtain the hyper-mormonistic accompaniment of at least a hundred wives apiece; and further that the tribe have such a strong affection for goats, that when a herd come down to bathe they flock to the place, and there remain for a long time. Hence the fishermen were in the habit of dressing themselves in goat-skins and skinning the water of the poor sargs—*Credat Judæus*—

“When bleating concerts and the deeper sound
Of shepherds echo through the vast profound,
With eager haste th’ unwieldy Sargos move,
By nature slow, but swift to meet their love;
With wanton gambols greet the horned fair,
Vault o’er the waves and flutter in the air;
Unhappy lovers, who too soon shall find,
Their pleasures hollow and their goats unkind.
Deceitful swains, the fatal hint improve,
And arm the flattering destinies with love.
A goat-skin o’er his back the fisher throws,
And sets th’ crested horns above his brows;
The flesh and fat incorporates with flour,
And scatters o’er the flood a foodful shower,
The fair disguise and scented victuals’ charms,
With joint attraction call the finny swarms;
They round the mimic goat in crowds repair,
Thoughtless their sports, their joys are insincere.
Poor ignorants! a deadly mate they find,
His shape familiar, but estranged his mind.
A sturdy rod his latent hand extends,
The flaxen cordage from the top descends,
The fleshy feet of goats unhoof’d conceal
With odoriferous bait the barbed steel;
With unsuspecting haste the fish devours,
Mounts to the jerk, and tumbles on the shores.”

In another passage he relates how the fishermen of the Tyrrhine Sea constructed light skiffs, resembling Xiphias, which attracted these fish, and from which the fishermen harpooned them. He also mentions and gives the use of a great variety of ancient nets, to which, as he says, he might have added many more but for the exigencies of verse :—

“A thousand names a fisher might rehearse
Of nets, intractable in smoother verse.”

And specially he describes the meshed “engine,” used for the capture of tunny; so immense, complex, and intricate, that—

“Nets like a city to the floods descend,
And bulwarks, gates, and noble streets extend.”

He thus shows that the ancients kept a magnificent stock of nets, and probably anticipated in many instances what we imagined to be modern improvements or inventions.

His sketch of the well-known pilot fish, or “whale’s friend,” is very pretty, and even touching :—

“Bold in the front the little pilot glides,
Averts each danger, every motion guides;
With grateful joy the willing whales attend,
Observe the leader and revere the friend
True to the little chief obsequious roll,
And soothe in friendship’s charms their savage soul.
Between the distant eyeballs of the whale
The watchful pilot waves his faithful tail,
With signs expressive points the doubtful way,
The bulky tyrants doubt not to obey,
Implicit trust repose in him alone,
And hear and see with senses not their own;
To him the important reins of life resign,
And every self-preserving care decline.”

Under the Greek name “Echencis,” *i.e.*, “stay-ship”

(Latin *remora*), Oppian well describes the "sucking-fish":—

"Slender his shape, his length a cubit ends,
No beauteous spot the gloomy race commends :
An eel-like clinging kind, of dusky looks,
His jaws display tenacious rows of hooks ;
The sucking fish beneath, with secret chains
Within his teeth, the sailing ship detains."

The "cramp-fish" of the Greeks, or torpedo of the moderns, must have been an awkward customer to tackle, if Oppian's description be correct :—

"The cramp-fish when the pungent pain alarms,
Exerts his magic pow'rs and passion'd charms,
Clings round the line, and bids th' embrace infuse
From fertile cells compest his subtil juice,
Th' aspiring tide its restless volume rears,
Rolls up the steep ascent of slipp'ry hairs,
Then down the rod with easy motion slides,
And entering in the fisher's hand subsides.
On every point an icy stiffness steals,
The flowing spirits bind, and blood congeals.
Down drops the rod dismiss, and floating lies,
Drawn captive in its turn, the fish's prize

Some of Oppian's best bits are his animated descriptions of fish sea-fights, in which the combatants are as intensely personified as his Homeric Greeks and Trojans in their hand-to-hand combats on the banks of the Simois and Scamander. But unlike mortal heroes, the aqueous belligerents of Oppian pull each other to pieces without any responsibility on their part or shock to moral sense on ours :—

"Unwise we blame the rage of warring fish,
Who urged by hunger *must* supply the wish ;
Whilst cruel man, to whom his ready food
Kind earth affords, yet thirsts for human blood."

From Oppian we gather that the ancients were well

versed in the use of all kinds of medicated and scented pastes, both as baits and ground-baits for fish, and also with a variety of intoxicants and narcotics, by which fish could be rendered senseless and capturable. The cyclamen, or "sow-bread," was known to the ancients, as it is to the Neapolitans and others at the present time, as having a special property of drugging fish; and the poet tells us that—

"Soon as the deadly cyclamen invades
The ill-starr'd fishes in their deep-sunk glades,
Emerging quick the prescient creatures flee
Their rocky fastnesses, and make for sea,
Nor respite know; the slowly-working bane
Creeps o'er each sense and poisons every vein,
Then pours concentrated mischief on the brain.
Some drugg'd, like men o'ercome with recent wine,
Reel to and fro, and stagger through the brine;
Some in quick circlets whirl; some 'gainst the rocks
Dash, and are stunn'd by repercussive shocks;
Some with quench'd orbs or filmy eyeballs thick
Rush on the nets and in the meshes stick;
In coma steep'd, their fins some feebly ply;
Some in tetanic spasms gasp and die
Soon as the plashings cease and stillness reigns,
The jocund crew collect and count their gains."

But almost irresistible as the temptation is to quote further from this most interesting author, even in his English garb, we must pass on. Arrian, a Greek historian, who lived in the second century, and rose to the highest dignities in Rome, furnishes us with some interesting details of an almost exclusively ichthyophagous community in India, and their wonderful skill, both in the manufacture and use of nets made from the inner bark of palm-trees. Towards the close of the second century we have Julius Pollux, a Greek writer who, in one of the books of his *Onomasticon*, tells us a good deal about fish and fishing.

We will take Ausonius to represent the fourth century. He is a notable piscatory writer, and is the first Latin poet who mentions the salmon under its present title :—

“Nec te puniceo rutilantem viscere *salmò*
Transierim.”

And in another passage :—

“Purpureusque *salar* stellatus tergora guttis.”

He further also distinguishes it by different names, according to its age, as it is distinguished now; though modern nomenclature, varying as it does in so many different districts in the United Kingdom, leads to great confusion, and has been a bar to the advancement of knowledge as regards salmonoid biology. He mentions also the trout and grayling, the latter under its significant title of “*umbra*” (umber), given it because of its quickly passing out of sight by its rapid movements like a “shadow” :—

“Effugiens oculis celeri *umbra* natatu.”

Ausonius seems to be the first author in prose or poetry who introduces the pike or jack (*Esox lucius*). Thus :—

“The wary *luce*, midst wrack and rushes hid,
The scourge and terror of the scaly brood;”

and, gastronomically deprecating him, adds :—

“Unknown at friendship’s hospitable board,
Smokes ’midst the smoky tavern’s coarsest food.”

The *Mosella* (Moselle) is Ausonius’s chief work, in which he describes the beauty of the river, the fish therein, and the anglers who take them thereout. Here is a picture of angling in the passage beginning with “*Ille autem scopulis* ;” and though it might run better in a metrical translation, reads fairly well as given by Mr. Lambert :—

“While the other, stooping over the rocks towards the waters below, lowers the bending top of his limber rod, casting his hooks

laden with killing baits. Upon these the vagrant crowd of fishes, unskilled in snares, rush, and their gaping jaws feel too late the wounds inflicted by the hidden steel; their quivering tells the fisherman of his success, and the wavy rod yields to the quivering tremor of the shaking line; and at once the angler jerks sideways his stricken prey with a whistling sound (*i.e.* the rapidity of his action in bringing out his line makes the air whistle). The air receives the blow, as when it resounds with the cracking of a whip, and the wind hisses from the air in motion. The watery spoils (*i.e.* caught fish) jump on the dry rocks, and dread the death-dealing beams of the light of day. They, that were so full of vigour in their native waters, spiritless gasp out their wasting lives in our air; now with weakened body they wriggle feebly on the ground—the torpid tail quivers its last; the jaws do not close, but through its gills, dying it gives back in mortal gasps the breath it draws; as when the wind plays on the fires of a workshop the (opening) mouth of the beech-covered (sided) bellows alternately draws in and expels the blast. Some (fish) I have seen even at the point of death gather up their strength, then spring aloft and fling their curved bodies headlong into the stream below and regain enjoyment of the waters lost to hope; while after them the fisherman, impatient at his loss, wildly leaps, and by swimming vainly strives to grasp them again.”

It has been suggested by Mr. Lambert that as the *Salme* flows into the Moselle, it was probably from it that the *salmon* took its name, unless, indeed, it was the fish that gave its name to the river, just as “colours” have often given their names to “materials.” Mr. Lambert also mentions that Ausonius wrote a poem “on the oyster”—a subject which we can well understand does not readily lend itself to poetical treatment, unless the “blessed bivalve” were dilated upon as being happy in love, as well as “crossed in love,” in accordance with the suggestion in *The Critic* of Sheridan.

Æsop in the sixth century introduced fish and fishing

into his fables ; and a long stride brings us to Cassianus Bassus, who flourished in the beginning of the tenth century. The twentieth book of his *Geoponica* is almost entirely devoted to fishing and baits.

It is not pretended that the above-mentioned authors exhaust the list of Greek, Roman, and other writers on fish and fishing during the first ten centuries ; but the extracts given are sufficient to show that the subject from very early times gradually gave rise to a literature more or less its own. Authors who treated of the *vivaria*, or fish-stews of the Romans, might be quoted, notably Varro (who wrote *De Re Rustica* in his eightieth year), Columella, Palladius, and several others also, in whose works a good deal of halieutic and ichthyological information is to be found scattered up and down.

Numberless early works on fish and fishing have been wholly or partially lost to us, among which may be mentioned those of piscatory poets, such as Numeneus of Heraclea, Cœcius of Argos, Poseidonius of Corinth, Pancrates the Arcadian, and Leonidas of Tarentum. Of these only a few fragments have been preserved ; and the following translation (*Blackwood's Magazine*, vol. xxxviii.) of an " Epitaph of an Angler," by the last-named, is worth quoting :—

" Parmis, the son of Callignotus—he
Who troll'd for fish the margin of the sea,
Chief of his craft, whose keen, perceptive search,
The kichlé, scarus, bait-devouring perch,
And such as love the hollow clefts, and those
That in the caverns of the deep repose,
Could not escape—is dead.

Parmis had lured

A julis from its rocky haunts, secured
Between his teeth the slippery pert, when, lo !
It jerk'd into the gullet of its foe,

Who fell beside his lines and hooks and rod,
 And the choked fisher sought his last abode.
 His dust lies here. Stranger, this humble grave
 An angler to a brother angler gave."

The "Old Fathers" of the church have been cited as contributors to the literature of fish and fishing, such as Clemens Alexandrinus, Basil, Ambrose of Milan, Athanasius, Augustine, Isidore of Seville, and others; but their contributions in most cases are little more than allusions. Isidore, however, in his *De Ordine Creaturarum*, gives an account of fish, and the seas and rivers they inhabit; and the well-known passage, referred to by Izaak Walton, from the *Hexameron*; or, *the Six Days' Work of Creation*, by St. Ambrose, apent the grayling (*Salmo thymallus*), always deserves to be quoted as a happy description. The translation of the Latin may thus run:—

"Nor shall I leave thee unhonoured in my discourse, O Thymallus (grayling), whose name is given thee by a flower: whether the waters of the Ticino produce thee or those of the pleasant Atesis, a flower thou art. In fine, the common saying attests it; for it is pleasantly said of one who gives out an agreeable sweetness, he smells either of fish or flower: thus the fragrance of the fish is asserted to be the same as that of the flower. What is more pleasing than thy form? more delightful than thy sweetness? more fragrant than thy smell? The fragrance of the honey exhales from thy body."

So gastronomically enchanted was the good bishop with the grayling, that it is said he "never let it pass without the honour of a discourse."

Perhaps as a "curiosity of literature" connected with fish, the sermon said to have been delivered by St. Anthony of Padua (351 to 356 A.D.), to a "miraculous congregation of fishes," may here be given. It is taken from a curious

little volume in the writer's possession, the third edition of *The Angler's Museum*, by T. Shirley, the first edition of which was published in 1784. The sermon, with some introductory and closing remarks, was prefixed to the second edition, and altogether stands thus :—

*“The following Curious Sermon,
preached by ST. ANTHONY of
PADUA, in ITALY, to a miraculous
CONGREGATION of FISHES,
extracted from ADDISON'S
TRAVELS, is here inserted
for the Amusement of our
READERS.*

“When the Hereticks would not regard his preaching, he betook himself to the seashore, where the river Marecchia disembogues itself into the Adriatic. He here called the fish together in the name of God, that they might hear his holy word. The fish came swimming towards him in such vast shoals, both from the sea and river, that the surface of the water was quite covered with their multitudes. They quickly arranged themselves according to their several species, into a very beautiful congregation ; and, like so many rational creatures, presented themselves before him to hear the word of God. St. Antonio was so struck with the miraculous obedience and submission of these poor animals, that he found a secret sweetness distilling upon his soul, and at last addressed himself to them in the following words :—

“Although the infinite power and providence of God (my dearly beloved fish) discovers itself in all the works of the creation, as in the heavens, in the sun, in the moon, and in the stars ; in this lower world, in man, and in other perfect creatures ; nevertheless, the goodness of the Divine Majesty shines out in you more eminently, and appears after a more particular manner, than in any other created beings ; for, notwithstanding you are comprehended under the name of reptiles, partaking in a middle nature between stone and beasts, and imprisoned in the deep abyss of waters ; notwithstanding you are tossed among the

billows, thrown up and down by tempests, deaf to hearing, dumb to speech, and terrible to behold ; notwithstanding, I say, these natural disadvantages, the Divine Greatness shows itself in you after a very wonderful manner. In you are seen the mighty mysteries of an infinite goodness. The Holy Scriptures have always made use of you as the types and shadows of some profound sacrament. Do you think that without a mystery the first present that God Almighty made to man was of you? O ye fishes! Do you think that without a mystery among all creatures and animals which were appointed for sacrifices, you only were excepted? O ye fishes! Do you think that our Saviour Christ, next to the Pascal Lamb, took so much pleasure in the food of you? O you fishes! do you think it was mere chance, that when the Redeemer of the world was to pay a tribute to Cæsar he thought fit to find it in the mouth of a fish? These are all of them so great mysteries and sacraments, that oblige you in a more particular manner to the praises of your Creator. It is from God, my beloved fish, that you have received being, life, motion, and sense. It is He that has given you, in compliance with your own natural inclinations, the whole world of waters for your habitations. It is He that has furnished it with lodgings, chambers, caverns, grottos, and such magnificent retirements as are not to be met with in the seats of kings, or in the palaces of princes. You have the water for your dwelling, a clear transparent element, brighter than chrystal; you can see from its deepest bottom everything that passes on its surface. You have the eyes of a lynx or of an Argus. You are guided by a secret and unerring principle, delighting in everything that may be beneficial to you, and avoiding everything that may be hurtful. You are carried on by a hidden instinct to preserve yourselves and to propagate your species; you obey, in all your actions, works, and motions, the dictates and suggestions of nature, without repugnancy or contradiction. The colds of winter and the heats of summer are equally incapable of molesting you; a serene or clouded sky are indifferent to you; let the earth abound in fruits or be cursed with scarcity, it has no influence on your welfare. You live secure in rain, and thunders, lightnings, and earthquakes; you have no concern in the blossoms of spring

or in the glowings of summer, in the fruits of autumn or the frosts of winter ; you are not solicitous about the hours or days, months or years, the variableness of weather or changes of seasons. In what dreadful majesty, in what wonderful power, in what amazing providence, did God Almighty distinguish you among all the species of creatures that perished in the universal deluge ! You only were insensible of the mischief that laid waste the whole world. All this, as I have already told you, ought to inspire you with gratitude and praise to the Divine Majesty that has done so great things for you, granted you such particular graces and privileges, and heaped upon you such distinguishing favours ; and since all this you cannot employ your tongues with praises of your benefactor, and are not provided with words to express your gratitude, make at least some sign of reverence : bow yourselves at his name ; give some show of gratitude ; according to the best of your capacities express your thanks in the most becoming manner you are able, and be not unmindful of all the benefits that he has bestowed on you.' "

He had no sooner done speaking, than, behold a miracle ! The fish, as though they had been endowed with reason, bowed down their heads with all the marks of profound humility and devotion, moving their bodies up and down with a kind of fondness, as approving what had been spoken by the blessed Father St. Antonio.

The legend adds, that after many heretics who were present at the miracle had been converted by it, the saint gave his benediction to the fishes and dismissed them.

Several of the like stories of St. Anthony are represented about his monument in a basso-relievo.

There is very little indeed in the way of anything on ichthyological literature to dwell on between the close of the tenth century and the introduction of printing. It was a period very barren of all kinds of literature. Blakey presses into the service of angling literature of this period Juan Ruiz, a Spaniard, who wrote a poem called *The Battle*

of *Mr. Carnal and Mrs. Lent*, in 1350, fish and beasts being represented in an internecine contest, which resulted in the victory of the former. But this is hardly to our purpose. A recent writer on angling literature states that the oldest English treatise on fishery is contained in the Colloquy of the Saxon Ælfric; but it is valueless as far as matter is concerned, though the list of both salt and fresh water fish is interesting. A record of the different modes of fishing with worm, fly, torch and spear, night lines, &c., is to be found in Richard de Fournival's Latin poem, *De Vitulâ*, supposed to have been written in the thirteenth or fourteenth century. It existed only in manuscript until 1861, when it was printed by Aubry. A most interesting old English poem by Piers of Fulham, supposed to have been written about the year 1420, contains some very quaint notices about fish and their capture. It is entitled "*Vayne conseytes of folysche love undyr colour of fyscheng and fowlyng.*" Three or more manuscripts of this poem are in existence. It opens thus in the version given by Blakey:—

"A man thath lovith fisshyng and fflowlyng bothe,
Ofte tyme that lyff shall hym be lothe,
In see in ryver in ponde or in poole,
Off that crafte thowe he knowe the scole,
Thought his nett never so wide streiche,
It happith full ofte hym naught to ketchen."

The author was evidently a good sportsman as times went, and preferred running to stagnant waters, though in the former he does not intend to stick to entirely legitimate angling. He delivers himself on this wise:—

"But in rennyng ryvers that bee commone,
There will I fische and taake my fortune
Wyth nettys, and with angle hookys,
And laye weris, and spenteris in narrowe brookys."

But a still earlier British author in connection with angling is a Scotch rhymster called Blind Harry, who is credited with the *Poeticae*, in which lines a contention about fishing rights between Sir William Wallace and Lord Percy is related. The date of the poem is put toward the end of the fourteenth century. It does not seem to be recognised in the *Bibliotheca Piscatoria*. The contention described reminds one of the suggested etymology of *rivalry*, from *rivus*, a river; and certainly the constant disputes about "fishing rights" up to the present day, *e.g.* those connected with the Thames, which are still *sub judice*, favour the suggestion.

CHAPTER III.

AUTHORS ON SEA AND RIVER FISHING, FROM THE
INTRODUCTION OF PRINTING INTO ENGLAND (1474
A.D.) TO THE TIME OF IZAAK WALTON.

THE first printed book connected with the literature of fishing claims England as its nationality, and an English lady as its author. It is known as the *Book of St. Albans*, and was written (or perhaps it might be more correct to say "edited") by Dame Juliana Berners (or Barnes), or, as some call her, Dame Julyans, and even plain "Mrs. Barnes," who is generally believed to have been the Prioress of Sopwell, near St. Albans. Some ruins of this still remain, and can easily be visited by anglers who, like the writer, have the privilege of whipping the Ver, below the city, whose ancient name of *Verulamium* is still perpetuated by this pretty trout-stream. The *Book of St. Albans* is supposed to have been written early in the fifteenth century, but the first edition of it, which comprises discourses on hawking and hunting and "other commendable treatyses," and was printed by the "schoolmaster-printer" of St. Albans in 1486, contains nothing about fishing. The next edition was printed by the famous printer at Westminster, Wynkyn de Worde, in 1496, and in this appears, as an addition to the others, a *Treatyse of fysshynge*. Whether the good and learned Dame was an angler herself, or whether she ought to receive the full credit of originality for her treatise on angling (a fact which

may seriously be called in question, judging at least from an old MS. of much earlier date in the Denison collection), we will not now discuss. Certain it is that she wished to encourage the art of angling to be raised in public estimation, as the following paragraph appended to her discourse shows :—

“ And for by cause that this present treatyse sholde not come to the hondys of eche ydle persone, whyche wolde desire it yf it were empynted allone by itself, and put in a lytyll paunflet ; therefore I haue compyld it in a greter volume of dyuerse bokys concernynge to gentyll and noble men. To the intent that the forsayd ydle persones whyche scholde haue but lytyll mesure in the sayd dysporte of fysshynge sholde not by this meane vtterly dystroye it.”

However, the good Prioress herself, or some one with or without her consent—the law of “copyright” then being as little understood or observed as it is now—republished the treatise in a separate form in the same year, entitling it *The Treatyse of Fysshynge with an Angle*. It was “Imprinted at London, by Wynkyn de Worde, dwellynge in Flete-street, at the sygne of the Sonne,” and must have appeared very soon after the second edition of the *Book of St. Albans* in 1496. Here, then, we have the first printed volume of our angling literature ; and only one copy of it is known to be in existence, though many MS. copies of it are to be found in the greater libraries, and at least ten printed editions of it appeared before the year 1600. One of the best fac-similes of the treatise, from the second edition of the *Book of St. Albans* of 1496, is that produced by Mr. Elliot Stock (Paternoster Row), in 1880, with a most interesting preface by the Rev. M. G. Watkins. This, like many other reprints of old books, which are one of the literary fashions of the day, is likely soon to become very

difficult to obtain, only a limited number of copies having been printed. The editions of the combined treatises of Dame Juliana Berners have been numerous. Mr. Stock has also reproduced in fac-simile the whole of the original *Book* of 1486.

Looking to the contents of the *Treatyse of Fysshynge* itself, admirers of old authors on the gentle craft can hardly be enthusiastic in its praise as a literary production, nor can modern anglers derive any useful knowledge from it. It is rather as a literary curiosity than as a book of practical value that it must be regarded, as the following extracts, which perhaps had better be given in the more modern English of later editions, will show. The Dame introduces her subject in this strain :—

“Solomon in his parables saith that a good spirit maketh a flowering age, that is, a fair age and a long. And sith it is so : I ask this question which be the means and the causes that induce a man into a merry spirit? Truly to my best discretion, it seemeth good disports and honest games in whom a man joyeth without any repentance after. Then followeth it that good disports and honest games be cause of man's fair age and long life. And, therefore, now will I choose of four good disports and honest games, that is to wit : of hunting, hawking, fishing, and fowling.”

She has no hesitation in saying, “The best to my simple discretion which is fishing, called angling with a rod, and a line, and a hook,” and then she goes on to contrast it with various other sports :—

“Hunting as to my intent is too laborious, for the hunter must always run and follow his hounds travelling and sweating full sore ; he bloweth till his lips blister ; and when he weneth it be a hare, full oft it is a hedge-hog. Thus he chaseth and wots not what. He cometh home at even, rain-beaten, pricked, and his clothes torn, wet shod, all miry, some hound lost, some surbat. Such

griefs and many other happeneth unto the hunter, which for displeasance of them that love it I dare not report. Thus truly me seemeth that this is not the best disport and game of the said four. The disport and game of hawking is laborious and noisome also as me seemeth; for often the falconer loseth his hawks, as the hunter his hounds, then is his game and his disport gone; full often crieth he and whistleth till that he be right evil athirst. His hawk taketh a bow and list not once on him reward; when he would have her for to flee, then will she bathe; with misfeeding she shall have the fronce, the eye, the cray, and many other sicknesses that bring them to the souse. Thus by proof this is not the best game and disport of the said four. The disport and game of fowling me seemeth most simple, for in the winter season the fowler speedeth not, but in the most hardest and coldest weather; which is grievous; for when he would go to his gins he may not for cold. Many a gin and many a snare he maketh; yet sorrily doth he fare; at morn-tide in the dew he is wet shod unto his tail. Many other such I could tell, but dread of meagre maketh me for to leave. Thus me seemeth that hunting and hawking and also fowling be so laborious and grievous, that none of them may perform nor be very mean that induce a man to a merry spirit; which is cause of his long life according unto the said parable of Solomon."

The quaint passage is worth continuing:—

"Doubtless then followeth it that it must needs be the disport of fishing with an angle: for all other manner of fishing is also laborious and grievous; often making folks full wet and cold, which many times hath been seen cause of great infirmities. But the angler may have no cold nor no disease, but if he be causer himself. For he may not lose at the most but a line or a hook: of which he may have store plenty of his own making as this simple treatise shall teach him. So then his loss is not grievous, and other griefs may he not have, saving but if any fish break away after that he is taken on the hook, or else that he catch nought: which be not grievous. For if he fail of one, he may not fail of another, if he doth as this treatise teacheth; but if there be nought in the water. And yet at the least he hath his

wholesome walk and merry at his ease, a sweet air of the sweet savour of the mead flowers, that maketh him hungry. He heareth the melodious harmony of fowls. He seeth the young swans, herons, ducks, coots, and many other fowls with their broods; which me seemeth better than all the noise of hounds, the blast of horns, and the cry of fowls that hunters, falconers, and fowlers can make. And if the angler take fish, surely there is no man merrier than he is in his spirit. Also whoso will use the game of angling, he must rise early, which thing is profitable to man in this wise, that is to wit, most to the heal of his soul. For it shall cause him to be holy, and to the heal of his body, for it shall cause him to be whole. Also to the increase of his goods, for it shall make him rich. As the old English proverb saith in this wise, whoso will rise early shall be holy, healthy, and zealous. Thus have I proved in my intent that the disport and game of angling is the very mean and cause that induceth a man into a merry spirit: which after the said parable of Solomon, and the said doctrine of physic, maketh a flowering age and a long. And therefore to all you that be virtuous, gentle, and free-born, I write and make this simple treatise, following by which ye may have the full craft of angling to disport you at your last, to the intent that your age may the more flower and the more longer to endure."

A curious instance of literary plagiarism may be mentioned in connection with this passage. That terribly long-winded but entertaining author, old Burton, of "melancholy anatomy," evidently had it in his eye as well as in his mind when he wrote—

"Fishing is a kinde of hunting by water, be it with nets, weeles, baits, angling, or otherwise, and yields all out as much pleasure to some men as dogs or hawks, when they draw their fish upon the bank," saith Nic. Henselius, *Silesiographiæ*, cap. 3, speaking of that extraordinary delight his countrymen took in fishing and making of pooles. James Dubravius, that Moravian, in his book *De Pisc.*, telleth how, travelling by the highway-side in Silesia, he found a nobleman booted up to the groins, wading himself, pulling

the nets, and labouring as much as any fisherman of them all: and when some belike objected to him the baseness of his office, he excused himself, that if other men might hunt hares, why should not he hunt carpes? Many gentlemen in like sort, with us, will wade up to the armholes, upon such occasions, and voluntarily undertake that to satisfie their pleasure, which a poor man for a good stipend would scare be hired to undergo. Plutarch, in his book *De Soler. Animal.*, speaks against all fishing as a filthy, base, illiberall employment, having neither wit nor perspicacity in it, nor worth the labour. But he that shall consider the variety of baits, for all seasons, and pretty devices which our anglers have invented, peculiar lines, false flies, severall sleights, &c., will say, that it deserves like commendation, requires as much study and perspicacity as the rest, and is to be preferred before many of them; because hawking and hunting are very laborious, much riding, and many dangers accompany them; but this is still and quiet; and if so be the angler catch no fish, yet he hath a wholesome walk to the brook side, pleasant shade, by the sweet silver streams; he hath good air, and sweet smels of fine fresh meadow flowers; he hears the melodious harmony of birds; he sees the swans, hems, ducks, water hens, cootes, &c., and many other fowle with their brood, which he thinketh better than the noise of hounds, or blast of horns, and all the sport that they can make."

But to return to our authoress—she is very minute in her instructions as to baits and tackle, "roddees," and "harnays" generally, and the "instrumentes" for making them. Among several curious woodcuts is one of hooks of eighteen sizes (of something like the "Limerick" bend), with thick shanks and beards, which she says are "the most subtle and hardest craft in the making of your harness;" and these are her directions for their production, given (as a specimen) in the old spelling:—

"For smalle fysshe ye shall make your hokes of the smalest quarcil nedlye that ye can fynd of stele, and in this wise. Ye

shall put the quarell in a redde charkcole fyre tyll that it be of the same colour that the fyre is. Thenne take hym out and lete hym kele, and ye shall fynde hym well alayd [alloyed] for to fyle. Thenne rayse the berde with your knyfe, and make the poynt sharpe. Thenne alaye him agayn, for elles he woll breke in the bendyng. Thenne bende hym lyke to the bende figuryd hereafter in example. Whan the hoke is bendyd bete the hynder ende abroad, and fyle it smothe for fretynge of thy lyne. Thenne put it in the fyre agayn, and yene it an easy redde hete. Thenne sodaynly quenche it in water, and it will be harde and strong."

"Good" anglers, who look on "trimmering" as a crime second only in enormity to wilful murder, and on "live-baiting" of any kind as a heinous misdemeanour, will be shocked to find our piscatory Dame giving directions for the latter, and adding—

"If ye lyst to have a good sporte, thenne tye the corde to a gose fote, and ye shall have a gode halynge, whther the gose or the pyke shall have the better."

The "twelve manere of ympedyments whyche cause a man to take noo fysshe" enumerated by the Prioress, may be useful in suggesting excuses which the angler with an empty creel is always supposed to produce for his want of success. They are, "1, badly-made harness; 2, bad baits; 3, angling at wrong time; 4, fish strayed away; 5, water thick; 6, water too cold; 7, wether too hot; 8, if it rain; 9, if hail or snow fall; 10, if there be a tempest; 11, if there be a great wynd; 12, if wind be east."

Our authoress concludes her treatise by giving all kinds of good advice. To rich anglers she says, "fish not in no poor man's water," and "break no man's gins." To all, "break no man's hedges," and "open no man's gates, but that ye shut them again." Anglers are to "use this foresaid crafty disport for no covetousness," but for "solace" and

health to both body and soul ; not to take too many persons in their company, so that they may "not be let of their game" or prevented "serving God devoutly in saying affectuously their customable prayer;" and, lastly, they are not to be "too ravenous in taking game," or "to take too much at one time," which they "might lightly do, if in every point they do as this present treatise showeth them." With a final injunction to anglers, that they "nourish the game," and "destroy all such things as be devourers of it," she assures them that "if they do after this rule they shall have the blessing of God and St. Peter."

Whether "Mrs. Barnes" is entitled to the appellation of the "Diana of the English," and "this Rosa Bonheur of mediæval literature," with which Mr. Adams, in one of the Fisheries Handbooks, compliments her, though perhaps somewhat ironically, readers of the *Treatyse* must decide for themselves. They will certainly find in its quaint pages an ample fund of amusement.

But though the introduction of printing on the Continent, and the appearance of an English book on angling only a little more than twenty years after Caxton set up his printing press in Westminster, might have been thought likely to have soon called forth an abundance of piscatory literature, this was hardly the case. Among foreign authors of the sixteenth century on fish and fishing we find Dubravius, Bishop of Olmutz, who wrote on fish and fishponds in 1552 ; Heresbach, who, in 1594, published his four books on *Rustic Occupations*, one of which, on fishing, has been translated by Mr. Westwood in the *Angler's Note Book* of 1880 ; and others who followed much in their line. The names of Sannazarius the Italian poet, Olaus Magnus Archbishop of Upsala, Salviani, Ongaro, and Villifranci occur to the bibliographer ; also those of Gesner and

Rondeletius ; and later on in the seventeenth century (without paying due regard to chronological order) those of Du Bartas, Du Cange, Cats of Amsterdam, Aldrovandri, and Giannettasius. Several of the above, as readers of Izaak Walton remember, are frequently quoted by him, but the works of most of them will not repay study, being the products of a period singularly deficient in knowledge and the gift of scientific observation ; while the poetical writers among them seldom rise above mediocrity. As a whole they have but little interest for English readers, whether anglers or otherwise ; while in some cases they can hardly be considered as contributors to piscatorial literature at all, though they have been claimed as such by some bibliographers. Several of them find no place in the *Bibliotheca Piscatoria*.

We are naturally much more interested in the works of English writers, and with these it may be presumed that this little volume was intended to have most to do. However much our literary Prioress of Sopwell may have stimulated the practice of angling, she does not appear, as far as we know, to have stimulated angling authorship. It is not till the year 1590 that we come to another real angling author, Leonard Mascall, who at that date published his *Booke of Fishing with Hooke and Line, and all other instruments thereunto belonging*, a quaint black-letter quarto. With the exception of some remarks upon the "preservation of fish in ponds," and intructions for killing vermin, piscatorially it is no improvement upon Juliana. Indeed the portion relating to fish and fishing is mainly taken, though very clumsily, from the *Treatyse* of the Prioress ; and thus Mascall set an example of literary theft, which has continued to be a feature of angling literature up to the present day. A copy of the first edition is in the

British Museum. In 1596¹ was published William Gryndall's *Hawking, Hunting, Fowling, and Fishing . . . now newly collected by W. G. Faulkener*; the "W. G." being the initials of the author, and the "Faulkener" a fancy name added because the volume contained some remarks on "*the maner and order in keeping of hawkes.*" It is little more than a reproduction of the *Book of St. Albans* with variations. Taverner followed in 1600 with *Certaine Experiments concerning Fish and Fruite* "by him published for the benefit of others."

The beginning of the seventeenth century introduces us to a new kind of fishing literature, which has been termed "Angling Spiritualised." It is forced and unnatural from a literary point of view, though in accordance with the fashion of symbolism in vogue among the Caroline divines. The "Old Fathers," in some instances, gave the cue to it, but many "reverend" authors and preachers who affected it, approached more than closely the confines of the ludicrous. We cannot, however, forget the many scriptural associations with fish and fishing. The first of the divines, of the period of which we are speaking, to come out strongly in this line, was Samuel Gardiner, D.D. He published in 1606 *A Booke of Angling or Fishing*, "wherein is showed, by conference with Scriptures, the agreement between the Fishermen, Fishes, and Fishing, of both Natures, Temporal and Spirituall Mat. iv. 19. I will make you fishers of men." The author summarises the contents of his book in two Latin verses, which he "delivers in English thus" :—

The Church I gouern as a shippe,
Wee scae with world compare,
The Scriptures are the enclosing nettes,
And men the fishers are."

The nine chapters (162 pages), of which the book is composed, elaborate the idea with tedious simile and allegory. Hone, in his *Year Book* gives several extracts from it. There are only two known copies of the work, the one in the Bodleian, and the other in Mr. Huth's collection. A transcript, prepared for republication, was made by the Rev. H. S. Cotton, and is now in the Denison collection. The author was himself "a lover of the angle." In 1609 we have Dr. Rawlinson's sermon—*Fishermen Fishers of Men*—preached at Mercer's Chapel. Quaintly enough observes the worthy doctor :—

"Very likely, that while I thus launch forth into the deepe and cast my nette upon the face of the waters, it will fare with me as with other fishermen, who, among many fish, meet with some carps, and if by chance they alight upon a sturdy jack, there is great tug betwixt them, whether they shall catch the jack or the jack them."

And further on,

"It is fabled by the poet (Ovid, Met. iii. 8) that Bacchus began his empire by the transmutation of mariners into fishes. So doth Christ, the true Bacchus, his genitus (God of the substance of His Father begotten before the world, and Man of the substance of His Mother, borne in the world), begin His Kingdome, even the Kingdome of His Gospel, with the metamorphising of men into fishes, yet doth He not either transubstantiate them into fishes, like those mariners, or ingulfe them into the bellie of a fish, like Jonas, or make them fish the one halfe, flesh the other, like Myrmaides—

' Ut turpiter atrum

Desinat in piscem mulier formosa superne.'

But herein will He have them to symbolize with fishes, that as fishes are caught lineis textis, with a net of twisted lines, so must they be lineis ex Scriptura contextis with the net of God's Word made out of lines taken out of the Scripture."

Several other divines followed in the same groove,

notably Dr. W. Worship in a sermon entitled *The Fisher*, in 1615, and the Rev. Jerome Phillips in one called *The Fisherman*, in 1623. Among laymen, the Hon. R. Boyle was a contributor to it with his *Reflections*, in 1665. This edition is rare; but there is a reprint of the book by Masson, of Oxford (1848). Readers can hardly be recommended to trouble themselves about it, except as a literary curiosity by a seventeenth century moraliser, who, after his kind, can spin out long strings of commonplace contemplations on such commonplace subjects as on "One's drinking water out of the brimes of his hat," and on "Catching a store of fish at a baited place." But this style of literature gradually died out as a better taste prevailed.

Resuming mention of those who may truly be called contributors to the literature of fishing, we come to one who was at first only modestly known by his initials, J. D. A notable work, of very great interest and literary merit, is *The Secrets of Angling: teaching the choicest Toolles, Baytes, and Seasons, for the taking of any fish, in Pond or River . . .* by J. D., Esquire. The first edition was published in 1613, and there are copies of it in the Bodleian Library, and in the collections of Mr. Denison and Mr. Huth. It is in the form of a poem in three books, but, though mention of it anticipates the chapter on English Poets of the Angles, it must here be introduced, because it may be fairly considered as a practical treatise on fish and fishing. Izaak Walton, who quotes from it, attributed it to "John Davors," and R. Howlett, in his *Angler's Sure Guide* (1706), to Dr. Donne; while it has also been credited to no less than six different poets of the name of "Davies"; but its authorship was finally determined in 1811, by the evidence of the books of the Stationers'

Company, in which the work was entered in 1612 as being by "John Dennys, Esquier." The author was very probably the son of Hugh Dennys, who came of an old Gloucestershire family, and was grandson of Sir Walter Dennys. John Dennys died in 1609, and was buried at Pucklechurch; and as Roger Jackson, for whom the poem was first printed in 1613, states in his dedicatory letter, that it was "sent to him to be printed after the death of the author," who "intended to have printed it in his life," there is every presumption that the author is now identified. There were four editions of the poem printed between 1613 and 1652. Only three *perfect* copies of the first edition are said to be in existence, one in the Bodleian, the second in the collection of Mr. Denison, and the third in that of Mr. Huth, from which last Mr. Arber produced his reprint in the first volume of the *English Garner* in 1877. Of the second edition Mr. Denison has the only copy known. It is supposed to have been printed in 1620, but the date, unfortunately, is cut off. The only copy of the third edition (1630) is also in Mr. Denison's collection. There are some variations in the different editions. On the title page of the first edition is an allegorical woodcut representing two men, one treading on a serpent, and with a sphere at the end of his line, while over his rod, on a label, is the inscription :—

" Hold, hooke and line,
Then all is mine."

The other with a fish on his hook, labelled thus :—

" Well fayre the pleasure
That brings such treasure."

The reprint of *The Secrets*, in possession of the writer, is by Mr. Thomas Westwood, and was published by W. Satchell

and Co., of Tavistock Street, only this year. Mr. Westwood very rightly does not approve of the "emendations" and "modernizations" in the orthography and syntax made by Mr. Arber in the reprint above mentioned, considering that they "rob the verse of much of its ancient air and aspect." He therefore gives us a "strictly faithful and literal transcript of the edition of 1613;" and this is certainly the reprint of which anglers and lovers of old literature should possess themselves. The length of the poem in this reprint runs to nearly forty pages of four stanzas each. It is "excellently well" done.

And now let us look into the poem itself. J. D.'s work has probably met with more general commendation from critics than any work connected with angling (hardly excepting the *Complete Angler*) in the whole range of literature. Beloe, in his "Anecdotes of Literature and Scarce Books," says of it that "perhaps there does not exist in the circle of English literature a rarer volume:" and Dr. Badham (attributing it, like Walton, to "Davors") calls it an "elaborately beautiful poem;" while in his preface to Stock's reproduction of *Dame Berners*, the Rev. M. G. Watkins holds that J. D.'s "verses have, perhaps, never been surpassed." J. D. was a poet as well as an angler born, and after Walton's immortal work, no higher compliment has ever been paid to the sport of angling. The poem contains much point, elevation of thought and sweetness, and subtlety of rhythm, as well as subtlety of diction in handling what, in itself, may be considered a prosaic subject, when mere instructions in the art of angling are attempted in verse. It is replete also with apt classical allusions. To give a just idea of its scope and nature, perhaps it would be well to present the author's table of—

CONTENTS.

THE FIRST BOOKE CONTAINETH THESE THREE HEADS.

- (1) The Antiquitie of Angling, with the Art of Fishing, and of Fish in Generall.
- (2) The Lawfulnessse, Pleasure, and Profit Thereof, with all Objections Answered, Against it.
- (3) To Know the Season, and Times to Provide the Tooles, and How to Choose the Best, and the Manner How to Make Them Fit to Take Each Severall Fish.

THE SECOND BOOKE CONTAINETH

- (1) The Angler's Experience, How to Use His Tooles and Baytes, to Make Profit by His Game.
- (2) What Fish is not Taken with Angle and What Is, and Which is Best for Health.
- (3) In What Waters and Rivers to Finde Each Fish.

THE THIRD BOOKE CONTAINETH

- (1) The Twelve Virtues and Qualities Which Ought to be in Every Angler.
- (2) What Weather, Seasons, and Times of Yeere is Best and Worst, and What Houres of the Day is Best for Sport.
- (3) To Know Each Fishes Haunt, and the Times to Take Them. Also an Obscure Secret of an Approved Bait Tending Thereunto.—D.

It is no easy task to select passages for quotation from a work of equal merit throughout, but the following will give a fair idea of it to those who have never perused the whole. After comparing the joys of angling with the distractions and excitements of town life and its pleasures, he "counts it better pleasure to behold"—

"The hills and Mountaines raised from the Plaines,
 The plaines extended leuell with the ground,
 The ground deuided into sundry vaines,
 The vaines inclos'd with running riuers rounde,

The riuers making way through nature's chaine,
 With headlong course into the sea profounde :
 The surging sea beneath the valleys low,
 The valleys sweet, and lakes that louely flowe.

"The lofty woods, the forrests wide and long,
 Adorn'd with leaues and branches fresh and greene,
 In whose coole bow'rs the birds with chaunting song,
 Doe welcome with thin quire the *Summer's* Queene,
 The meadowes faire where *Flora's* guifts among,
 Are intermixt the verdant grasse betweene,
 The siluer skaled fish that softlie swimme
 Within the brookes and Cristall watry brimme."

"All these, and many more of his creation,
 That made the heaucens, the *Angler* oft doth see,
 And takes therein no little delectation,
 To think how strange and wonderfull they be,
 Framing thereof an inward contemplation,
 To set his thoughts from other fancies free,
 And whiles he lookes on these with joyfull eye,
 His mind is rapt aboue the starry skye."

reminding us of Walton's lines, when he sings of the angler as one—

"Who with his angle and his books
 Can think the longest day well spent ;
 And praises God when back he looks,
 And finds that all was innocent."

and of what was said of Walton, that he "made angling a medium for inculcating the most fervent piety and the purest morality."

Towards the close of the first book, after dwelling on the antiquity of angling, in which the rude implements of primitive man are described—the rod a bough torn from a tree, and hooks of hardwood thorns—he thus describes the progress of the art :—

"In this rude sorte began this simple Art,
 And so remained in that first age of old,
 When *Saturne* did *Amalthea's* horne impart
 Vnto the world, that then was all of gold ;

The fish as yet had felt but little smart,
And were to bite more eager, apt, and bold ;
And plenty still supplide the place againe
Of woefull want whereof we now complaine.

“But when in time the feare and dread of man
Fell more and more on every liuing thing,
And all the creatures of the world began
To stand in awe of this vsurping king,
Whose tyranny so farre extended than
That Earth and Seas it did in thraldome bring ;
It was a work of greater paine and skill,
The wary Fish in lake or Brooke to kill.

“So, worse and worse, two ages more did passe,
Yet still this Art more perfect daily grew,
For then the slender Rod invented was,
Of finer sort than former ages knew,
And Hookes were made of siluer and of brasse,
And Lines of Hemp and Flaxe were framed new,
And sundry baites experience found out more,
Than elder times did know or try before.

“But at the last the Iron age drew neere,
Of all the rest the hardest, and most scant,
Then lines were made of Silke and subtile hayre,
And Rods of lightest Cane and hazell plant,
And Hookes of hardest steele inuented were,
That neither skill nor workemanship did want.
And so this Art did in the end attaine
Vnto that state where now it doth remaine.”

thus showing that even in his time fish were becoming less plentiful, and gradually more “educated.” He is more particular about his hooks than Dame Juliana aforesaid.

“That Hook I loue that is in compass round,
Like to the print that *Pegasus* did make
With horned hoofe upon *Thessalian* ground ;
From whence forthwith *Parnassus*’ spring outbrake.
That doth in pleasant waters so abound,
And of the *Muses* oft the thirst doth slake.”

This rather suggests the "Pennell" bend of hook, though perhaps the "angle of impact" would be a little too "indirect" to suit the theory of the learned angler and "ancologist," Mr. Cholmondeley Pennell. Further, according to J. D., these are the qualities of a good hook:—

"His *Shank* should neither be too short nor long;
His point not ouer sharp nor yet too dull;
The substance good that may endure from wrong;
His Needle slender, yet both round and full,
Made of the right *Iberian* metal strong,
That will not stretch or break at every pull;
Wrought smooth and clean without one crack or knot,
And bearded like the wilde *Arabian* goat."

Nor does J. D. forget to give instructions, and very sensible ones too, even as to the garb of the angler, though he did not live in the "Cording" age:—

"And let your garments Russet be or gray,
Of colour darke, and hardest to descry:
That with the Raine or weather will away,
And least offend the fearfull Fishes eye:
For neither Skarlet nor rich cloth of ray
Nor colours dipt in fresh *Assyrian* dye,
Nor tender silkes, of Purple, Paule, or golde,
Will serue so well to keep off wet or cold."

His descriptions of the various baits to be used by anglers, and instructions in fishing for various fish, will in many instances hold good in the present day. Here is a picture of an angler "dibbing," or "dapping," for chub, trout, &c.:—

"See where another hides himselfe as slye,
As did *Acteon* or the fearefull Deere;
Behinde a withy, and with watchfull eye
Attends the bit within the water cleere,
And on the top thereof doth moue his flye,
With skilfull hand, as if he liuing were.
Soe how the *Chub*, the *Roche*, the *Dace*, and *Trout*,
To catch thereat doe gaze and swimme about.

" His Rod, or Cane, made darke for being seene,
The lesse to feare the warie Fishe withall :
The Line well twisted is, and wryught so cleane
That being strong, yet doth it shew but small, \\\nHis Hooke not great, nor little, but betweene,
That light vpon the watry brimme may fall,
The Line in length scant halfe the Rod exceedes,
And neither Corke, no Leade thereon it needes."

His description of gudgeon-fishing also stands now, if we only substitute a " Thames punt " for the " little boate," and for a " pole " the " small-tooth combe," as the Thames professionals call the " gudgeon-rake."

" Loe, in a little Boate where one doth stand
That to a Willow Bough the while is tide,
And with a pole doth stirre and raise the sand ;
Where as the gentle streame doth softly glide,
And then with slender Line and Rod in hand,
The eager bit not long he doth abide.
Well Leaded is his Line, his Hooke but small,
A good big Corke to beare the stream withall.

" His baite the least red worme that may be found
And at the bottome it doth alwayes lye ;
Whereat the greedy *Goodgion* bites so sound
That Hook and all he swalloweth by and by :
See how he strikes, and puls them vp as round
As if new store the play did still supply.
And when the bit doth dye or bad doth proue
Then to another place he doth remoue.

" This fish the fitted for a learner is
That in the Art delights to take some paine ;
For as high flying Haukes that often misse
The swifter foules, are eased with a traine,
So to a young beginner yeeldeth this,
Such readie sport as makes him proue again
And leads him on with hope and glad desire,
To greater skill, and cunning to aspire."

It is curious to notice the variations from the first edition*

of J. D., which Walton has in his quotation of six stanzas in the first edition of the *Complete Angler* (1653). All four editions of *The Secrets* had appeared before Walton's book, and it is difficult to say from which he quoted, or whether some part was quoted from memory; and the writer cannot, without reference, which would be a very difficult matter, state what variations occur in the editions themselves. But his idea is that Walton made the alterations "on his own hook," so to speak, and more particularly in the first stanza quoted. In the Westwood reprint of J. D. it reads thus:—

"O let me rather on the pleasant Brinke
Of *Tyne* and *Trent* possesse some dwelling place;
Where I may see my Quill and Corke down sinke,
With eager bit of *Barbill*, *Bleike*, or *Dace*:
An on the World and his Creator thinke,
While they proud *Thais* painted sheat imbrace.
And with the fume of strong *Tobacco's* smoke,
All quaffing round are ready for to choke."

In Walton's version it runs:—

"Let me live harmlessly, and near the brink
Of *Trent* or *Avon* have a dwelling place;
Where I may see my quill, or cork, down sink
With eager bite of *Perch*, or *Bleak*, or *Dace*;
And on the world and my Creator think:
Whilst some men strive ill-gotten goods t' embrace;
And others spend their time in base excess
Of wine, or worse, in war and wantonness."

In addition to the other "variations," it will be seen that the three last lines of Walton's stanza are entirely substituted for those of J. D.; and as old Izaak was fond of his pipe, like the majority of "good" anglers, it is almost impossible to escape the conclusion that he deliberately made the substitution, because he would not help to

perpetuate what he considered an implied libel on the "divine herb."

The next piscatorial author to be mentioned is Gervase Markham, whose various works, and editions of them, are so various and complicated that no less than four and a half pages are devoted to them in the *Bibliotheca Piscatoria*. All of them contain more or less of disquisitions on fish and fishing, combined with "Res rusticæ." His first work was published in 1613, the year of the 1st Edition of J. D., and was entitled *The English Husbandman*, in "two bookes." But the first book, and also the second part of the second book, were sold separately. It is in this second part, dated 1614, and known as *The Pleasures of Princes ; Goodman's Recreations*, that we find "a discourse on the general art of fishing with an angle, &c.," which is evidently a prose version of J. D.'s *Secrets*, or, as Mr. Westwood calls it, "a transmigration," adding that "the transmuting process was effected by no unskilful hand, and without too much sacrifice of the precious metal of the original," a compliment which very few such experiments deserve. "This small Treatise in Rime, now, for the better understanding of the reader, put into prose," as Markham speaks of it in his *Country Contentments*, &c. (6th Ed., 1649), is interesting as a contemporary recognition, and the only one, of J. D. It would answer no good purpose to enumerate the many productions of Markham, extending, as they did, down to the year 1707. One in the possession of the writer, entitled *A Way to Get Wealth* (1653), has already been mentioned in Chapter I., and its further title, "Containing six principall Vocations or Callings in which every good Husband or Housewife may lawfully employ themselves," suggests the kind of Olla Podrida volumes produced by our author. It contains

descriptions of, and instructions on, almost every conceivable country business and recreation, dissertations on physic, chyrurgery, cookery, brewing, horticulture, book-keeping, distilling, "ordering of feasts," the enrichment of the Weald in Kent—*cum multis aliis quæ nunc describere longum est.*

It is very probable that Markham received some extraneous help in the composition of some of his treatises; but presuming them to be his own productions, let us take one or two specimens of his style. For example—

"Since Pleasure is a Rapture, or power in this last Age, stolne into the hearts of men, and there lodged up with such a carefull guard and attendance, that nothing is more supreme, or ruleth with greater strength in their affections, and since all are now become the souncs of Pleasure, and every good is measured by the delight it produceth; what worke unto men can be more thankfull then the Discourse of that pleasure which is most comely, most honest, and giveth the most liberty to Divine Meditation? And that without all question is the Art of Angling, which having ever bin most hurtlessly necessary, hath bin the Sport or Recreation of God's Saints, of most holy Fathers, and of many worthy and Reverend Divines, both dead, and at this time breathing."

Our author's ideal of an angler is a very high one. He must be, to use a common expression, a superlatively "good all-round man"—*ad omnia paratus.*

"A skilfull Angler ought to be a generall scholler, and seene in all the liberall sciences, as a grammarian, to know how either to write or discourse of his art in true and fitting termes, either without affectation or rudeness. Hee should have sweetness of speech to perswade and intice others to delight in an exercise so much laudable. Hee should have strength of arguments to defend and maintaine his profession against envy or slander. Hee should have knowledge in the sunne, moone, and starres, that by their aspects hee may guesse the seasonableness, or

unseasonableness of the weather, the breeding of the stormes, and from what coasts the winds are ever delivered.

“Hee should be a good knower of countries, and well used to high wayes, that by taking the readiest pathes to every lake, brook, or river, his journies may be more certaine and lesse wearisome. Hee should have knowledge of proportions of all sorts, whether circular, square, or diametricale, that when hee shall be questioned of his diurnal progresses, he may give a geographical description of the angles and channels of rivers, how they fall from their heads, and what compasses they fetch in their several windings. He must also have the perfect art of numbering, that in the sounding of lakes or rivers, hee may know how many foot or inches each severally containeth, and by adding, subtracting; or multiplying the same, hee may yie'd the reason of every river's swift or slow current. Hee should not be unskillfull in musick, that whensoever either melancholy, heaviness of his thought, or the perturbation of his owne fancies, stirreth up sadness in him, he may remove the same with some godly hymne or antheme, of which David gives him ample examples.

“Hee must then be full of humble thoughts, not disdaining, when occasion commands, to kneele, lye down, or wet his feet or fingers, as oft as there is any advantage given thereby unto the gaining the end of his labour. Then hee must be strong and valiant, neither to be amazed with stormes nor affrighted with thunder, but to hold them according to their natural causes and the pleasure of the Highest: neither must he like the foxe which preyeth upon lambs, imploy all his labour against the smallest frie, but, like the lyon, that seizeth elephants, thinke the greatest fish which swimmeth a reward little enough for the paines which he endureth. Then must he be prudent, that apprehending the reasons why the fish will not bite, and all other casuall impediments which hinder his sport, and knowing the remedies for the same, he may direct his labours to be without troublesomenesse.”

But here we had better say farewell to Gervase Markham, lest angling readers should feel too proud in con-

templating the picture painted of them, or too desponding at the thought of how far they fall below the high standard set before them.

In 1614 also was published *A Jewel for Gentry*, shortly described in the *Bibliotheca Piscatoria* as "a repetition of the book of St. Alban, somewhat methodised and polished." And now we pass on to an important work published shortly before the appearance of Walton's *Complete Angler*. This is Thomas Barker's *Art of Angling, wherein are discovered many rare secrets very necessary to be known by all that delight in that recreation*. It was published in 1651, *i.e.* two years before Walton's book, and another edition appeared, without the author's name, in 1653, *i.e.* the same year as Walton's. In 1657 the work appeared with the additional title of *Barker's Delight* prefixed, and by this name it is generally known, though on the title-page it is termed "the second edition," *i.e.* of the *Art of Angling*, of which it is an enlargement. Another edition was published in 1659, and there have been "Reprints" of this and the editions of 1651 and 1653, but both these and the originals are rare. *Barker's Delight*, having been called by himself "The Second Edition," has led to much confusion, and bibliographers, in dealing with him, unfortunately perpetuated this by speaking of the different editions without sufficient indications whether they are referring to the original *Art of Angling* or the *Delight*, and even in the *Bibliotheca Piscatoria* the reader gets sorely puzzled. Barker seems to have been a *chef*, as he says in his *Delight*:—"I have been admitted into the most Ambassadors that have come to England this forty years, and do wait on them still at the Lord Protector's charge, and I am duly paid for it." This statement, however, does not necessarily imply that he was an actual cook, though his

many directions about the cookery of fish show him well versed in the mageiric art, and he also states that he takes as much pleasure in the "dressing of fish as in the taking of them." Barker also tells us that he was no scholar:—"I doe crave pardon for not writing Scholler like," and only professes to give the result of his own "experience and practice." The *Delight* of 1659 was dedicated to "The Right Honourable Edward Lord Montague, Generall of the Navy, and one of the Lords Commissioners of the Treasury," and in the "Author's Epistle" he throws down this chivalrous challenge:—

"I am now grown old I have written no more but my own experience and practice. . . . If any noble or gentle angler, of what degree soever he be, have a mind to discourse of any of these wayes and experiments, I live in Henry the 7th's Gifts, the next door to the Gatehouse in Westm. My name is Barker, where I shall be ready, as long as please God, to satisfie them, and maintain my art, during life, which is not like to be long."

No doubt if old Barker were now in the flesh, he would be to the fore in "Angling Sweepstakes," and ready to dispute with any one for a wager the title of "Champion Roach-fisher," which is affected by modern adepts in this art.

Some idea of Barker's quaintness of style may be gathered from the following passage, with which the body of the work begins:—

"Noble Lord, under favour, I will compliment and put a case to your Honour. I met with a man, and upon our discourse, he fell out with me, having a good weapon but neither stomach nor skill: I say this man may come home by Weeping Cross, I will cause the clerk to toll his knell. It is the very like case to the gentleman angler that goeth to the river for his pleasure: this

angler hath neither judgment nor experience, he may come home light-laden at his leisure."

To Barker must be given the credit, or rather discredit, of discovering and counselling the use of salmon-roë as a bait. He says :—

"I have found an experience of late, which you may angle with, and take great store of fish. . . . The bait is the roë of a salmon, or trout, if it be a large trout, that the spawnes be anything great. If I had but known it twenty years ago, I would have gained a hundred pounds, onely with this bait. I am bound in duty to divulge it to your Honour, and not to carry it to my grave with me. The greedy angler will murmur at me, but for that I care not."

Following, too, in the wake of Dame Juliana Berners, he recommends the "goose-trimmer"—

"The principal sport to take a pike is to take a goose or gander, or duck: take one of the pike lines, tie the line under the left wing, and over the right wing, about the body, as a man weareth his belt; turn the goose off into the pond where the pikes are; there is no doubt of sport, with great pleasure, betwixt the goose and the pike; it is the greatest sport and pleasure that a noble gentleman in Shropshire doth give his friends entertainment with."

Barker brings us to what may be called the Waltonian era, which will be dealt with in the next chapter; and it must be confessed that, from a purely critical point of view, our fishing literature of the period just traversed cannot be held in very high estimation. A good deal of it is interesting enough for its originality and quaintness, and also for the insight it gives us into the art of fishing as practised by our forefathers, and the "engines" and baits they used in præ-Waltonian times; and, it may almost be added, for its evidence of rank plagiarism among

many authors. It has its interest, too, and value from a bibliographical standpoint. But beyond this, little can be said in its praise. Allowance, however, must be made, in consideration of "the state of learning" during many generations after the introduction of printing, and of the somewhat limited range of the subject treated of by piscatorial authors. Doubtless among those of the period we have been surveying, J. D. stands out as the "bright particular star"—*velut inter ignes luna minores*.

CHAPTER IV.

IZAAK WALTON—HIS CONTEMPORARIES AND SUCCESSORS
TO END OF THE SEVENTEENTH CENTURY.

THE very mention of the name—*clarum et venerabile*—of Izaak Walton in connection with the literature of angling, suggests a task of far greater magnitude than can be here accomplished, especially as the notices of authors before his time have stretched to far greater length than was anticipated, and those after him have yet to be dealt with. Indeed a volume of no slight dimensions would be required to do justice to Walton and his book ; and even a bibliographical record of the various phases and mutations of the *Complete Angler* as Mr. Westwood has shown in his *Chronicle of Izaak Walton* (1864), affords subject matter for a volume in itself, and yet be unexhausted. This will be even better understood when it is mentioned that the fifty-three editions chronicled by Mr. Westwood in his volume just mentioned have been increased to ninety by himself and his coadjutor Mr. Satchell, and that their enumeration, with short bibliographical notes on some of them, takes up no less than twenty pages in the *Bibliotheca Piscatoria*. A new edition of the *Chronicle* is now in the press, with notes and additions, by T. Satchell, and its publication may be expected before Christmas.

Let us glance at a few of the chief of these "Waltons." The first edition of the *Complete Angler* was published in 1653, and it was duly advertised by "the enterpris-

ing publisher" of the period. The announcement ran in *The Perfect Diurnall* from the 9th to the 16th of May, 1653, thus:—

"The Compleat Angler, or the Contemplative Man's Recreation, being a discourse of Fish and Fishing, not unworthy the perusal of most Anglers, of 18 pence price. Written by Iz. Wa. printed for Richard Marriot, to be sold at his Shop in Saint Dunstan's Churchyard. Fleet Street."

It was similarly advertised in the *Mercurius Politicus* from the 19th to the 26th of May.

There was no indication of the name of the author on the title-page, and he only signs himself Iz. Wa. at the foot of the "Letter of Dedication" to John Offley, and of the "Address to the Reader." The first sentence, ending with "Recreation," of the title was engraved on a scroll, which has "classic" dolphins above and below, with a string of fish pendent on either side, and the whole resting on a shell. It is a curious fact that the word "Compleat" which appears on the scroll is printed "Complete" on all the pages of the book, and since then the word seems to have been printed indiscriminately in either form, according to the fancy of Walton's editors, though most editions have "Complete." On the title-page also appeared the text— "Simon Peter said, I go a fishing; and they said, we also will go with thee. John 21, 3." A well preserved and perfect copy of this edition is now worth about £50, and perhaps more, and he who obtains one becomes in his way as much of a hero as the owner of a winner of the Derby, or the capturer of the largest salmon or Thames trout of the season. The second edition, published in 1655, was

"much enlarged," indeed almost rewritten by the author; commendatory verses by seven writers are for the first time inserted; a third interlocutor in the person of *Auceps* is introduced; and *Venator* is substituted for *Viator*. It has been surmised that these characters were suggested to Walton by the work of Heresbach, mentioned in the last chapter. The third and fourth editions appeared in 1661 (the edition of 1664 being really only that of 1661) and 1668, corrected and enlarged, but not to the same extent as that of 1655. We now come to the fifth and very important edition, from the fact that it was the last in which Walton had a hand, or which was published in his lifetime. It appeared in 1676. Seven years later, and the old man laid down his pen as he had already laid aside his rod, and full of years and honours was gathered to his rest. This edition was in three parts, which, as indicated on the title-page, might "be bound together or sold each of them severally." The first part was Walton's own *Complete Angler*; the second consisted of *Instructions how to Angle for a Trout or Grayling in a Clear Stream*, written at the request of Walton by his intimate friend, and brother angler Charles Cotton, of Beresford; and the third, *The Experienced Angler*, by Colonel Robert Venables. The whole were comprised under the title of *The Universal Angler*. These five editions together not very long ago realised over £100, but this is probably a little above their market value.

Except on the supposition that Walton's work for an interval lacked appreciation, or that the sport of angling did not increase in popularity, it is difficult to account for the great gap between the fifth edition of 1676 and the sixth, which did not make its appearance till 1750. This last was the work of the Rev. Moses Browne, the author of *Piscatory Eclogues*, to whom we shall refer

in a later chapter, and claims note from the fact that its editor had the bad taste, to say the least of it, to tamper with his author, under the idea that by pruning, amending, and adding to the original text, he was adapting it to the supposedly refined taste of the time. Reverend lovers of old Izaak can only regard Browne's work as next door to sacrilege. In 1760 another editor comes on the stage in the person of Mr. John (afterwards Sir John) Hawkins. Subsequent editions and reprints of Hawkins, which number some twenty-five in all, covering at intervals a period stretching down to 1857, abound with notes, explanatory, critical, historical, and biographical, and much useful miscellaneous information. Moses Browne figures again as a Waltonian editor in 1772, and some interest attaches to his edition of this year, because it is said it was undertaken at the suggestion of Dr. Johnson, who, though ever to be execrated by anglers for his "worm and fool" libel, was one of the foremost admirers of the *Complete Angler*. Major's first edition was published in 1823, and was followed by another in 1824, both being well supplied with copper-plate and wood engravings, which took the public fancy. The first edition issued by Mr. Pickering, the publisher, dates in the year 1825, and was followed by others from the same house, the most important of which was that of 1835-6, in two grand imperial octavo volumes. It was edited by Sir Harris Nicolas, and profusely illustrated by Stothard and Inskipp. Though open to criticism in some respects, it is a noble tribute to Walton, and must ever remain one of the grandest ornaments of an angler's library. Other editions of Nicolas have been published, and the last, of 1875, will be found an excellent book of general reference on all matters Waltonian. A special feature of the Nicolas

editions is the division of Walton's dialogues into "Five Days," which thus bring out the dramatic character of the work. In Walton's first edition, though it is divided by the author into thirteen chapters, the dialogue evidently occupies five separate days, and "spaces" in the printing show where the conversation ends on each night. Major's fourth edition was published in 1844, and of it Mr. Westwood, in his *Chronicle*, says that "it approaches more nearly to our ideal of an edition consistent in all its parts than any of its predecessors or successors." The Rev. Dr. Bethune, an American, speaking of the illustrations in it, says, "Art could scarcely go further, and no more elegant volume could find a place in a library." Dr. Bethune is no mean judge, for he also has entered the lists as an editor of Walton, and is one of the most ardent admirers of the *Complete Angler* beyond the great ocean. His first edition was published in New York in 1847, and contains almost all one would seek to know about Walton and his work, and much interesting matter of all kinds, including papers on American fishing, and a very extensive catalogue of works on angling. It is well worthy of the commendation awarded to it by Mr. Westwood, when he says that "nowhere else do we find united so complete a body of angling-book statistics, and so large an accumulation of collateral data." Dr. Bethune's second edition appeared in 1880, with some additions and corrections. No angler's library should be without a Bethune. The editions by "Ephemera" (Edward Fitzgibbon) are well known; the first appeared in 1853, and the last in 1878. Christopher Davies, whose admirable work on the East Anglian broads and rivers has just been published, is among the recent editors of Walton, his volume being dated 1878. The very last *Complete Angler*, published only two or three

months ago, and consequently not included in the *Bibliotheca*, is another "Major," from the firm of Nimmo & Bain (King William Street, W.C.). It is most beautifully printed, handsomely bound, and profusely illustrated by masters of the limning art, two impressions of each of eight original etchings being, the one on Japanese, and the other on Whatman paper. This edition will hold its own among the best. Only 500 copies were printed, and it is now very difficult to obtain one.

The lovers and admirers of Walton, anglers and literary men who know their *Complete Angler* well, its associations and history, and have the privilege, if only occasionally, of spending pleasant hours in a Waltonian library, can readily sympathise with the words and feelings of Mr. Westwood, when on the completion of his *Chronicle* on which he had so long and lovingly laboured, he says :—

"Here our task ends—the ultimate milestone on the long road of more than two hundred years being reached at last. Through our window, as we write these closing lines, streams cheerily (and with a skimmer of young leaves and buzzing of insect wings), the May sunshine—that sunshine that, of yore, gladdened Piscator on his way through the Leaside meadows to his sport at matin-song, and that broods, we are fain to believe, with a softened radiance now, on his honoured grave in the grey pile of Winchester. Peace be to his ashes!—for his fame we have no fear; the bygone centuries have given their consecration to his work, the centuries to come will ratify that consecration anew. How much of good and great the future may have in store for it, it is not our province to predict. Suffice it that looking up to the shelves of our Angling Library, and to the *Fifty-three* several editions chronicled in these pages, we must say already for the Father of Fishermen, what he were too modest to say for himself could he return amongst us—

"Si monumentum quaeris
Circumspice!"

But though the time and treasure expended on these many editions have raised a mighty monument to the fame of Walton—*ære perennius*—still it may be questioned whether a further multiplication of them would answer any good purpose, unless an edition has got something really new and important to contribute to “Waltonology.” It seems unreasonable that authors should merely edit a Walton, as some seem to have done, for the sole purpose of overloading it with notes—more suitable for digestion into the form of an “Angler’s Manual.” Perhaps to some the *raison d’être* of an edition of the *Complete Angler* may be the alleged fact that there are in existence five hundred collectors who make a point of buying a copy of every one that comes out; but it is possible to have too much even of a good thing. It is a different matter with *éditions de luxe*. Such an one was recently contemplated by Messrs. Sampson Low, Marston and Co., to be edited by Mr. Francis Francis, whose illness is deplored by the literary as well as angling world. All rejoice to hear that he is now progressing towards recovery, and it is to be hoped that the publishers with his assistance may yet be able to carry out their intentions. What would the angler-bibliophile give for the production of another *old* Walton, which may have hitherto escaped the notice of bibliographers? This is an age of discovery of antiquities, literary and otherwise, and though we do not wish to give encouragement to piscatorial Shapiras (or Sapphiras), the finder of a genuine *old* Walton on any skin would surely have his reward. Are *all* cupboards, shelves, and chests, in out-of-the-way nooks and corners yet exhaustively searched?

Up to the present time ninety-four editions of Walton have been chronicled, and two more are to be added to this list, making in all ninety-six—a number which will favour-

ably compare with the editions of Shakespeare, Bunyan, and the *Christian Year*.

An admirable facsimile reprint of the first edition of the *Complete Angler* was executed by Mr. Elliot Stock, of Paternoster Row, in 1876, the very tint and texture of the antique paper being reproduced, with the small pages of "fat" type and its long s's; while the art of photography revived the Delphinic title-page, the quaint head-pieces, and the "cuts" of the terrible fish. But like the original first edition, it is now very scarce.

The *Complete Angler* was well received by Walton's contemporaries, of whom "Delightful" Barker was one; and to him Walton in the "Fourth Day" acknowledges himself indebted for his "directions for fly-fishing," which he, through the medium of *Piscator*, proceeds to give "with a little variation." Richard Franck, however, a Cromwellian trooper, an Independent of the sour Puritan type, and a stupendously pretentious writer, but an angler of some experience, was the exception. In his *Northern Memoirs* (in which he gives an account of fly-fishing in Scotland), published in 1694, though (as he says on his title-page) "writ in 1658," does not hesitate to charge full tilt against Walton on this wise—

"However, Izaak Walton (late author of the *Compleat Angler*) has imposed upon the world this monthly novelty, which he understood not himself; but stuffs his books with morals from Dubravius and others, not giving us one precedent of his own practical experiments, except otherwise where he prefers the trencher before the trolling-rod; who lays the stress of his arguments upon other men's observations, wherewith he stuffs his indigested octavo; so brings himself under the angler's censure, and the common calamity of a plagiarist, to be pitied (poor man) for his loss of time, in scribbling and transcribing other men's notions. These are the drones that rob the hive, yet flatter the bees they bring them honey."

This is a hard hit ; and it would appear that the author, who was also a practical angler and salmon-fisherman, had on one occasion a personal argument on matters piscatorial (and perhaps religious and poetical) with Walton. Sir Walter Scott, however, who, in 1821, published an edition of Franck with preface and notes, comes to Walton's rescue, though he credits Franck with practical angling knowledge. He says :—

“ Probably no readers while they read the disparaging passages in which the venerable Izaak Walton is introduced, can forbear wishing that the good old man, who had so true an eye for Nature, so simple a taste for her most innocent pleasures, and withal, so sound a judgment, both concerning men and things, had made this northern tour instead of Franck ; and had detailed in the beautiful simplicity of his Arcadian language, his observations on the scenery and manners of Scotland. Yet we must do our author the justice to state, that he is as much superior to the excellent patriarch Izaak Walton, in the mystery of fly-fishing, as inferior to him in taste, feeling, and common sense. Franck's contests with salmon are painted to the life, and his directions to the angler are generally given with great judgment.”

Byron, who had seldom a good word for any one, had his fling at old Izaak, when he says—

“ And angling, too, that solitary vice,
 Whatever Izaak Walton sings or says ;
 The quaint, old, cruel coxcomb, in his gullet
 Should have a hook, and a small trout to pull it.”

Some persons say they can see an expression of cruelty in Walton's portraits !

And even a modern author on angling, who must at least be given credit for the courage of his opinions, says of Walton and his book—

“ I am free to confess I have derived neither pleasure nor profit. There is no doubt that in his day the worthy citizen was an excellent angler ; he was also a simple-minded, kindly, prosy,

and very vain old gentle-woman I would not whisper it at the "Walton's Head," or the "Walton's Arms," or hint at it at the "Jolly Angler's" or the "Rest," or any other resort of his so-called disciples, but to my readers I will impart my private conviction, that there is now at least little practically to be learnt from Izaak Walton's *Complete Angler*, and that the reading of it is rather heavy work than otherwise."

Every one has a right, as it is said, to his own opinion, and to the pleasure derived from thinking that singularity may be mistaken for cleverness. And there is such a thing as the deficiency of a reader being visited on a writer. But perhaps in reference to no book ever written has there been such a universal chorus of praise, from the day of its publication to the present time ; and for once in a way the showers of "commendatory verses," which after a fashion of the time fell on the *Complete Angler*, were justly deserved. A very long *catena* of eminent critics, past and present, might be adduced who speak in the highest terms of the book and the author's literary merits, which he showed also in his admirable *Lives of Donne, Wotton, Hooker, Herbert, and Sanderson*. Not to go back very far, Dr. Johnson, as before mentioned, was a great admirer of Walton ; and Charles Lamb thus writes to Coleridge in a letter dated October 28, 1796 :—

"Among all your quaint readings did you ever light upon Walton's *Complete Angler* ? I asked you the question once before ; it breathes the very spirit of innocence, purity, and simplicity of heart ; there are many choice old verses interspersed in it ; it would sweeten a man's temper at any time to read it ; it would Christianize every discordant, angry passion ; pray make yourself acquainted with it."

Hazlitt, Sir Walter Scott, Wordsworth, and Hallam, all considered the *Complete Angler* as a triumph of literary skill. The last-mentioned says that our "Golden age" of

literature began "with him who has never since been rivalled in grace, humour, and invention," and he adds—

"Walton's *Compleat Angler*, published in 1653, seems by the title a strange choice out of all the books of half a century; yet its simplicity, its sweetness, its natural grace, and happy intermixture of graver strains with the precepts of angling, have rendered this book deservedly popular, and a model which one of the most famous among our late philosophers, and a successful disciple of Izaak Walton in his favourite art (Sir Humphrey Davy) has condescended (in his *Salmonia*) to imitate."

Among the most recent weighty testimonies to Walton as an author was that accorded to him a few years ago by the Dean of Lichfield on the unveiling of a marble bust of Walton in St. Mary's Church, Stafford, in which town he was born, and in which church he was baptized in 1593. The Dean also dwelt eloquently on Walton's character; but as that does not directly concern us here, suffice it to say that from what is well known of his life, it accorded with a very high Christian standard. He was remarkable for his integrity, his simplicity, his peaceable disposition, for the warmth and steadfastness of his friendship, for his loyalty to his sovereign, for his humility and devotion towards God. The times in which he lived were amongst the most critical in our national history. His long life stretched over the last ten years of Elizabeth's reign, and reached onwards to within two years of the end of that of Charles II., and during the whole of that eventful period "honest Izaak" (as he was called by his familiars) pursued the even tenour of his way, mourning over the calamities which he could not avert, thanking God for the measure of good which he enjoyed, and endeavouring to stamp on others the impress of his own pure and contented spirit.

December the 15th next will be the two-hundredth anniversary of his death beneath the shadow of Winchester

Cathedral, in which his body lies. We would venture to suggest that it would be well and appropriate that some special notice should be taken of this bicentenary of his departure. And might not a more worthy monument be raised to him within the Cathedral walls or elsewhere?

Even in this critical age the *Complete Angler* is acknowledged to be one of the most perfect idylls written in any age or country. As Guillim is to the herald, Blackstone to the legist, and Hawker to the fowler, so is Walton to the disciples of the "gentle art;" and though many of the ichthyological statements in the *Complete Angler* are not in accordance with the modern knowledge of zoology, or its angling directions a reliable guide to modern fishermen, it will doubtless remain a standard English classic "for all time," and the best *Angler's Companion*, "which age cannot wither nor custom stale." The angling bibliographer and poet-angler, Mr. Westwood, thus sings its praises in his *Lay of the Lea*:—

" Now in the noontide heat
Here I take my seat.

Izaak's book beguiles the time—of Izaak's book I say,
Never dearer page
Gladden'd youth or age;
Never sweeter soul than his bless'd the merry May.

" For while I read,
'Tis as if, indeed,
Peace and joy and gentle thoughts from each line were welling;
As if earth and sky
Took a tenderer dye,
And as if within my heart fifty larks were trilling.

" Ne'er should angler stroll,
Ledger, dap, or troll,
Without Izaak in his pouch on the banks of Lea;—
Ne'er with worm or fly
Trap the finny fry,
Without loving thoughts of him, and—*Benedicite!*"

There is no need to give quotations from a book that most anglers know by heart, but if immediately after the encomiums on Walton the bathos be not too painful, we will reproduce the famous "frog" passage, and directions for "live-baiting." This is the first passage—

"Put your hook into his mouth, which you may easily do from the middle of April till August; and then the frog's mouth grows up, and he continues so for at least six months without eating, but is sustained, none but He whose name is Wonderful knows how: I say, put your hook, I mean the arming-wire, through his mouth and out at his gills; and then with a fine needle and silk sew the upper part of his leg, with only one stitch, to the arming-wire of your hook; or tie the frog's leg, above the upper joint, to the armed-wire; and, in so doing, use him *as though you loved him*, that is, harm him as little as you may possibly, that he may live the longer."

And this is the second, which shows that Walton did not repudiate the ideas of Dame Juliana Berners, or of his friend Barker:—

"Or if you bait your hooks thus with live fish or frogs, and in a windy day, fasten them thus to a bough or bundle of straw, and by the help of that wind can get them to move across a pond or mere, you are like to stand still on the shore and see sport presently, if there be any store of pikes. Or these live baits may make sport, being tied about the body or wings of a goose or duck, and she chased over a pond. And the like may be done with turning three or four live baits, thus fastened to bladders, or boughs, or bottles of hay or flags, to swim down a river, whilst you walk quietly alone on the shore, and are still in expectation of sport. The rest must be taught you by practice; for time will not allow me to say more of this kind of fishing with live baits."

The "bottles of hay or flags" thus early suggest the "liggering" business, by which sportsmen (save the mark!)

have well-nigh depopulated of their jack some of the best Norfolk "Broads."

And now by way of contrast we will add the famous—it might almost be said "immortal"—passage anent the nightingale, which more than one divine have quoted in their sermons and commentaries—

"But the nightingale, another of my airy creatures, breathes such sweet loud music out of her little instrumental throat, that it might make mankind to think miracles are not ceased. He that, at midnight, when the very labourer sleeps securely, should hear, as I have very often, the clear airs, the sweet descants, the natural rising and falling, the doubling and redoubling of her voice, might well be lifted above earth, and say, 'Lord, what music hast thou provided for the Saints in Heaven, when thou affordest bad men such music on Earth.'"

Among Walton's contemporaries who were writers on fish and fishing Barker has been already mentioned. Colonel Robert Venables too, a strong royalist, has been spoken of as the writer of the *Experienced Angler*, which was first published in 1662 (though Mr. Estcourt says 1661), and afterwards in the *Universal Angler*, or fifth edition of Walton, in 1676. This treatise has gone through six editions, the last dating 1827. The second edition, the date of which is uncertain, was destroyed in the Great Fire of London. Walton contributed a courtly commendation of the volume addressed to his "ingenious friend the author"; but though there is some fair reading in it, it cannot rank in a high class of its kind. The remarks of the Colonel on what was two centuries ago, and is still, a *verata quaestio*, namely, the respective merits of "up" and "down" stream fishing, are in favour of the "downites." They will give an example of his style:—

"Fish are frightened with any, the least, sign or motion; there-

fore by all means keep out of sight, either by sheltering yourself behind some bush or tree, or by standing so far off the River's side, that you can see nothing but your flie or flote ; to effect this, a long Rod at ground, and a long Line with the artificial flie, may be of use to you. And here I meet with two different opinions and practices ; some always cast their flie and bait up the water, and so they say nothing occurreth to Fishes sight but the Line : others fish down the River, and so suppose (the Rod and Line being long) the quantity of water takes away or at least lesseneth the Fishes sight : but the other affirm, that Rod and Line, and perhaps yourself, are seen also. In this difference of opinions I shall only say, in small Brooks you may angle upwards, or else in great Rivers you must wade, as I have known some, who thereby got the Sciatica, and I would not wish you to purchase pleasure at so dear a rate ; besides, casting up the River you cannot keep your Line out of the water, which we noted for a fault before ; and they that are this way confess that if in casting your flie, the Line fall into the water before it, the flie were better uncast, because it frights the Fish ; then certainly it must do it this way, whether the flie fall first or not, the Line must first come to the Fish and fall on him, which undoubtedly will fright him : therefore my opinion is that you angle down the River, for the other you traverse twice so much, and beat not so much ground as downwards."

The length of this last sentence, its composition and punctuation, are to be noted. The Colonel was hardly good company for Walton and Cotton.

Cotton, Walton's other collaborateur in the *Universal Angler* (or fifth edition), and great personal friend, has already been mentioned. His remarks on trout and grayling fishing are still for the most part sound ; and his literary work, which like Walton he threw into dialogue form, does not fall far below the standard of "the master." It was Walton, Cotton, and Venables, the three joint parents of the *Universal Angler*, that the anonymous

author of *The Innocent Epicure*, first published in 1697, thus apostrophises :—

“ Hail great Triumvirate of Angling ! hail,
Ye who best taught, and here did best excel.”

But, as it has been remarked in reference to Dame Juliana Berners' treatise, that it gave no stimulus to angling authorship, so it may be noted in reference to the Walton and Cotton's *Complete Angler*, that it seems to have had the effect of making anglers rather shy of authorship. Perhaps this may be construed into a compliment to the joint authors ; but anyhow, the fact remains that during a period of a hundred years, dating from the fifth edition of the *Complete Angler*, or, as it might be put, down to the end of the eighteenth century, but a very few works on angling made their appearance, though the *Complete Angler* by that time had gone through fifteen editions. Barlow's extremely scarce book, *The severale wayes of hunting, hawking, and fishing, according to the English manner*, was published in 1671.

In 1674 appeared the *Gentleman's Recreation*, by Nicholas Cox, another of those strange “combination” books, containing treatises on several sports and country pastimes, and all kinds of odds and ends connected with rural pursuits. Such volumes for a long period are a marked feature of the literature connected with fish and fishing. But Cox's book is a bad sample of its kind, though it has gone through several editions. In the first place, it is not an original book, but a compilation, or rather a “cribbing,” from Gervase Markham and other authors ; and in the second place, the author is a dealer in miracles, marvels, superstitions, astrology, necromancy, and what not. The *Accomplisht Ladies' Delight*, published in the following year

is another "combination and compilation" volume, in which the author (probably a lady) gives directions for "preserving, physick, beautifying, and cookery," and "also some new and excellent secrets and experiments in the art of angling," which latter are freely borrowed from Barker, Walton, and others. The book is interesting, as giving evidence that there were lady anglers at this period; and part v. of the tenth edition (1719) is entitled "The female angler, instructing ladies, &c."

Mr. W. Gilbert's *Angler's Delight* of 1676, is a quaint book, of which the author says in the title—"The like never before in print!" He gives his readers "the method of fishing in Hackney Marshes, and the names of the best stands there," and bids them "go to Mother Gibert's, at the Flower de Luce, at Clapton, near Hackney," where "whilst you are drinking a pot of ale, bid the maid make you two or three pennyworth of ground-bait and some paste (which they do very neatly and well)." He suggests an angler's outfit as follows: "A good coat for all weathers; an apron to put your ground-bait, stones, and paste in; a basket to put your fish in, &c., . . . and if you have a boy to go along with you, a good neat's tongue and a bottle of Canary should not be wanting; to the enjoyment of which I leave you." A few weeks ago a barbel was taken in the Thames as low as Chelsea; but our author speaks of this fish frequenting London Bridge in his time. In a later edition he tells us how to "fox fish" with what he calls "Oculus India Berries;" but he cautions his readers "that they practice not this without a licence from the owners, least the whipping-post or pillory be their reward." Chetham's *Angler's Vade-mecum* was first published in 1681. The authors of the "Bibliotheca Piscatoria" credit him with being an "original" writer, and not a mere

manual compiler, adding that he is "never servile, nor plagiaristic, always honest, sometimes a little surly." He touches on the still vexed question of the mixture of silk and hair in fishing-lines, declaring in favour of "all of hair or all of silk." The following recipe for an unguent to allure fish, and its use cannot fail to provoke a smile :—

"Of Man's Fat, Cat's Fat, Heron's Fat, and of the best Assa-foetida, of each two Drams ; Mummy, finely powdered, two Drams ; Cummin-seed finely powdered, two Scruples, and of Camphor, Galbanum, and Venice Turpentine of each one Dram ; Civet-grains two. Make according to Art, all into an indifferent thin Oyntment, with the Chymical Oyls of Lavender, Annise, and Camomil, of each an equal quantity, and keep the same in a narrow-mouthed and well-glassed galley-pot close covered with a Bladder and Leather ; and when you go to Angle, take some of it in a small pewter Box, made taper, and anoint eight inches of the Line next the Hook therewith, and when washed off repeat the same. This Oyntment which for its excellency, Unguentum Piscatorum mirabile, prodigiously causes Fish to bite, if in the hand of an Artist that angles within water, and in proper Seasons and Times, and with suitable Tackle and Baits fit and proper for the River, Season and Fish he designs to catch. The Man's Fat you may get of the London Chyrurgeons, &c. * * * * I forbore (for some reasons) to insert the same in my fifth edition ; but now since its' divulged, value it not the less, but treat it as a jewel."

R. Nobbes, who was probably Vicar of Applethorp and Wood-Newton, in Northamptonshire, first published his *Complete Troller, or the Art of Trolling*, in 1682. He is often spoken of as the "Father of trolling," by writers on angling ; but it is a title of piscatory honour to which he has no just right, as this method of "jacking" is treated of in many of the works already mentioned. It may, however, be allowed that his discourse upon it is the first of any length, and he may be credited with having treated

this branch of angling very systematically, and of disseminating more correct views of it than had hitherto appeared.

Blome's *Gentleman's Recreation*, in 1686, is another of the "Inquire-within-upon-Everything" type of books, which have almost as many subjects treated of in them as has that tediously interesting "Anatomy of Melancholy," by Burton ; and *Northern Memoirs*, by Franck, the author already alluded to as tilting at Walton, was published in 1694. We cannot forbear quoting the following delicious little bit of his *re* the grayling :—

"The umber or grayling is an amorous fish that loves his life ; his mouth waters after every wasp, as his fins flutter after every fly ; for if it be but a fly, or the produce of an insect, out of a generous curiosity, he is ready to entertain it. Smooth and swift streams enamour him, but not a torrent ; yet, for this fly-admirer, there is another bait—the munket or sea-green grub, generated amongst owlder trees, also issues from willows, sallow, &c. Fish him finely, for he loves curiosity, neat and slender tackle, and lady-like. You must touch him gently, for he is tender about the chaps ; a brandling will entice him from the bottom, and a gilt-tail will invite him ashore."

The *True Art of Angling*, by J. S., was first published in 1696, and has passed through many editions. Only a few of the earlier ones have escaped the wear and tear of time. It has been suggested that this J. S. was none other than the owner of the good old English name of John Smith, who in 1684 published one of those numerous patchwork books, containing treatises on a multiplicity of rural sports and pastimes. John Smith, in his volume, included the "making of fireworks," and the "noble recreation of ringing." This brings us to the close of the Waltonian period and the end of the seventeenth century.

All interested in old angling literature will rejoice to

hear that in continuation of their "Library of Old Fishing Books," Messrs. Satchell, of Tavistock Street, have in progress the publication of the following rare volumes (in uniform Roxbro' binding) :—

1. An older form of the *Treatyse of Fysshynge wyth an Angle* (*circa* 1450), printed from a manuscript in the collection of Mr. Denison, with preface and glossary by Thomas Satchell.
2. The *Treatyse of Fysshynge wyth an Angle*, first printed by Wynkyn de Worde in 1496, with preface and glossary by Thomas Satchell.
3. The *Pleasures of Princes* (1614), by Gervase Markham, with introduction by Thomas Westwood.
4. Conrad Heresbach's *De Piscatione Compendium* (1570), with a translation by Miss Ellis and introduction by Thomas Westwood.
5. *A Book of Fishing with Hook and Line* (1590), by L[eonard] M[ascall].
6. *A Briefve Treatise of Fishing, with the Art of Angling* (1596), by W[illiam] G[ryndall].
7. Book xx of the *Geoponika* of Cassianus Bassus (*circa* 950), with a translation of the Greek and notes.
8. *A Jewell for Gentry* (1614).
9. Richard de Fournivall's *De Vetulâ* (1470), with Jean Lefevre's translation.

CHAPTER V.

AUTHORS ON FISH AND FISHING IN THE EIGHTEENTH CENTURY.

THE angling literature of this period need not detain us long, as its authors are neither numerous, instructive, nor models in the way of composition. Indeed it cannot be said that there is one among them who has left his mark, unless it be the author of *The Young Man's Companion*, 1703, whose production has been described as "a sandwich of pastime and piety, the one following the other as inevitably as ham follows beef at a picnic." This is a sample of it—

"Having cast into the river half the grains, and an hour being past, you have no bites of good Roches, you may conclude either the season is not good, or there are Perch or Pike there. Then go to some other place to angle for Roches; if you had baited the place when you first came to the river, the better. . . . Honest angler, as often as thou art weary, meditate on these verses :

"Cease then my soul to dote on or admire
This splendid world which is reserved for fire ;
Decline the company of sinners here,
As thou wouldst not be shackled with them there.

"When you have done angling, go and see if a pike hath swallowed the Roche, the bait, and if you perceive he is not a little one, draw him very gently towards you, and when he sees you away he flies ; let go and give him all the line you can, then draw him gently again to tire him. When he is weary, you may easily draw him to the bank-side and take him. Then will thy

mind be so stayed with the fear of the Lord, that this verse may not disagree with thy thoughts, viz. :

“When weary anglers in the night do sleep,
Their fancies on their float still watching keep.”

It is almost impossible to conceive how any one could dream of putting such mawkish trash into print.

The century has been called a “leaden” one, and is not undeserving of the title. The *Secrets of Angling*, by C. B., in 1705, is little more than a compilation, though fairly put together; and the same may be said of the *Country Gentleman's Vade-mecum*, by Jacob, in 1717. Saunders's *Compleat Fisherman*, in 1724, is a very far better work, giving a good deal of information on the English waters and fishing in different parts of the Continent; and it is interesting from the fact that in it is the first mention in any book on angling with “silk-worm gut.” Pepys, however, in his *Diary* (March 18th, 1677), says: “This day Mr. Cæsar told me a pretty experiment of his angling with a minikin, a gutt-string varnished over, which keeps it from swelling, and is beyond any hair for strength and smallness. The secret I like mightily.” As a matter of fact gut came into pretty general use after the middle of this century. The *Gentleman Angler* of 1726 does not contain much that was new in the way of piscatory information, but, under different names and in different forms, it passed through several editions, and seems to have been appreciated. Its special interest lies in the fact that it is the first book on angling in which we read of rings for the rod and the use of the winch:—

“It will be very convenient to have Rings, or Eyes (as some call them) made of fine Wire, and placed so artificially upon your Rod from the one End to the other, that when you lay your Eye to one, you may see through all the rest; and your Rod being

thus furnished, you will easily learn from thence how to put Rings to all your other Rods. Through these Rings your Line must run, which will be kept in a due Posture, and you will find great Benefit thereby. You must also have a Winch or Wheel affixed to your Rod, about a Foot above the End, that you may give Liberty to the Fish, which, if large, will be apt to run a great way before it may be proper to check him, or before he will voluntarily return."

The volume also contained "short plain instructions, whereby the most ignorant beginner may in a little time become a perfect artist in angling for Salmon." The "little time" even now, with all modern appliances, often takes a "lifetime."

The *British Angler*, by Williamson, in 1740, is a moderately good manual as times went, and, like most others, dealt largely with "pastes." It is a curious fact that the great majority of angling authors, who devote a considerable space to this department of fraudulent baits seldom recommend them personally. Richard Brooks, M.D., is another of the many appropriators of other men's labours, suggesting that *Sic vos non vobis* might be an appropriate motto for many a book on angling. His *Art of Angling*, in 1740, assumed the form of a dictionary. Richard and his son Charles Bowlker were famous anglers at Ludlow, and authors too, their *Art of Angling, improved in all its parts, especially fly fishing*, being really instructive. There seems to be some confusion in reference to their joint and separate authorship. The first edition appeared about 1758, and after that six other editions before the death of the son Charles Bowlker in 1779. Since then there have been six more editions, the last dating as late as 1839. "The voracity of the Pike" is a favourite ichthyological topic. Bowlker the younger has a story about it:—

"My father caught a Pike in Barn-Meer (a large standing

water in Cheshire), was an ell long, and weighed thirty-five pounds, which he brought to Lord Cholmondely; his lordship ordered it to be turned into a canal in the garden, wherein were abundance of several sorts of fish. About twelve months after his lordship draw'd the canal, and found that this overgrown Pike had devoured all the fish, except one large Carp, that weighed between nine and ten pounds, and that was bitten in several places. The Pike was then put into the canal again, together with abundance of fish with him to feed upon, all which he devoured in less than a year's time; and was observed by the gardener and workmen there, to take the ducks, and other water-fowl under water. Whereupon they shot magpies and crows, and threw them into the canal, which the Pike took before their eyes: of this they acquainted their lord; who, thereupon, ordered the slaughterman to fling in calves-bellies, chickens-guts, and suchlike garbage to him, to prey upon: but being soon after neglected, he died, as supposed, for want of food."

Shirley's *Anglers' Museum*, or "the whole art of float and fly fishing," published in 1784, is an unpretentious but well-written and practical little book. A well-executed portrait of "Mr. John Kirby, the celebrated angler," who was Keeper of Newgate and died in 1804, is prefixed to the third edition. The *North Country Angler*, or "the art of angling as practised in the Northern Counties of England," which, Mr. Chatto says, "ought to have been called 'The North Country Poacher,'" was published in 1786. Best's *Concise Treatise on the Art of Angling* appeared in 1787, since when eleven further editions have been published, 1838 being the date of the last. Best was keeper of His Majesty's Drawing Room in the Tower of London, and was evidently a good practical angler. He has no less than 30 pages of his book on the "Prognostics of Weather" to be observed by anglers.

During this century several editions of what may be called the "standard" authors on angling were issued at

intervals, but the authors above mentioned comprise nearly all in this country who essayed to deal with matters piscatorial. If other periods had not been more prolific of fishing literature, collectors of books on angling would have but a beggarly array of almost empty shelves.

CHAPTER VI.

AUTHORS ON FISHING IN THE NINETEENTH CENTURY.

THE nineteenth century list of English piscatory authors is very different to that of the last, both in quantity and quality. A recent writer on angling bibliography has said that "originality is scarce among them." But we venture to differ with him. The subject-matter of angling, as has been before remarked, is necessarily of a somewhat limited range ; and there must, of course, be some similarity in the works of those writers who treat mainly of it in its purely practical aspect, and especially in reference to the more common branches of the art. Bearing this in mind, we should be inclined, notwithstanding the multitude of angling works which have been published during the present century, to consider the diversity of style and matter as a marked feature in the angling literature of that period. Authors, generally speaking, have taken a variety of lines, as they themselves differ from each other in their fancies for this or that particular variety of fishing, in their variety of experiences and variety of literary bent. Thus readers have a vast choice of works put before them to suit their different wants and tastes—works scientific, descriptive, "informational," and humbly didactic. Moreover, hardly any two anglers will be found to agree as to which are their favourite authors ; at one time, or rather for one purpose, preferring one, and at another time, and for another purpose, another ; or, finding that different authors suit their different moods at different times, or supply the particular reading or

information they require on some particular branch of fishing, or for some particular angling expedition. Thus, if there is no very great amount of absolute "originality" among our angling authors, there is an abundant supply of diversity, and though in one sense they may be like one another, they are "like in difference."

The angling works of the present century being so numerous, we must perforce limit ourselves to only the mere mention by name of many of them; and, as the great majority of them are easily obtainable, we shall not to any great extent call in the aid of quotations from them, especially as this and the following chapter are intended rather for the purposes of reference and "indication" than of criticism.

Taylor's *Angling in all its Branches*, published in 1800, is a compendious and fairly written manual, and recommended by Sir Harris Nicolas in his editions of Walton; and Daniels' *Rural Sports* of the following year contains a good deal of readable matter on fish and fishing. The *Kentish Angler* of 1804 is one of the rare local books, and may still be consulted with profit. Mackintosh's *Driffield Angler*, of 1806, is still worth reading, especially by anglers in Midland streams. Robert Salter published his *Modern Angler* in 1811; but must not be confounded with Thomas Frederick Salter, a well-known hatter of his time, whose *Anglers' Guide*, published in 1814, has gone through a dozen or so editions, and may still be called a standard work. The same may be said of Bainbridge's *Fly-fishers' Guide*, 1816, the last edition of which was published in 1840. It was illustrated with coloured plates representing upwards of forty flies of the most useful kind, copied from nature, and well taught how

"To lightly on the dimpling eddy fling
The hypocritic fly's unruffled wing."

Carroll's *Anglers' Vade-mecum*, of 1818, was probably the first book on angling which gave flies *coloured by hand*.

We will here pay our Transatlantic cousins the compliment of including Washington Irving among "English" authors, and quoting a passage from *The Angler*, which appeared in his *Sketch Book of Geoffrey Crayon, Gent.*, in 1820 :—

"There is certainly something in angling that tends to produce a gentleness of spirit, and a pure sincerity of mind. As the English are methodical even in their recreations, and are the most scientific of sportsmen, it has been reduced among them to a perfect rule and system. Indeed it is an amusement peculiarly adapted to the mild and highly-cultivated scenery of England, where every roughness has been softened away from the landscape. It is delightful to saunter along these limpid streams, which meander like veins of silver through the bosom of this beautiful country; leading us through a diversity of small scenery; sometimes winding through ornamented grounds; sometimes running along through rich pasturage, where the fresh green is mingled with sweet-smelling flowers; sometimes venturing in sight of villages and hamlets; and then running capriciously away into shady retirements. The sweetness and serenity of nature, and the quiet watchfulness of the sport, gradually bring on pleasant fits of musing; which are now and then greatly interrupted by the song of the bird, the distant whistle of a peasant, or perhaps the vagary of some fish leaping out of the still water, and skimming transiently about its glassy surface."

The year 1828 is marked by Sir Humphrey Davy's *Salmonia*, which was reviewed by Professor Wilson (Christopher North) in *Blackwood*, and in the *Quarterly* by Sir Walter Scott. The dialogue may be a little too formal, and *Halieus* rather too particular a gentleman for an angler who often has to "rough it;" and certainly the whole book, though modelled on the *Complete Angler*, lacks the freshness,

simplicity, and geniality of Walton's style. Still it is a most delightful contribution to English angling literature, and will doubtless ever remain a prime favourite in the angler's library.

The decade dating from 1830 was prolific of angling authors. In 1832 Jesse published his *Gleanings*, "with maxims and hints for an angler;" and later on appeared his *Anglers' Rambles*, of which he said—

"Fish, nature, streams, discourse, the line, the hook,
Shall form the motley subject of my book."

Richard Penn, a great-grandson of William Penn, of Pennsylvania fame, published, in 1833, a partly practical and partly humorous book, which has gone through four editions, entitled *Maxims and Hints for an Angler and Miseries of Fishing*, etc. This is one of the "Maxims":—

"If during your walks by the river-side you have marked any good fish, it is fair to presume that other persons have marked them also. Suppose the case of two well-known fish, one of them (which I will call A) lying above a certain bridge, the other (which I will call B) lying below the bridge. Suppose further that you have just caught B, and that some curious and cunning friend should say to you, in a careless way, 'Where did you take that fine fish?' a finished fisherman would advise you to tell your inquiring friend that you had taken your fish just *above* the bridge, describing, as the scene of action, the spot which, in truth, you know to be still occupied by the other fish, A. Your friend would then fish no more for A, supposing that to be the fish which you had caught; and whilst he innocently resumes his operations below the bridge, where he falsely imagines B still to be, A is left quietly for you, if you can catch him."

And here is a brace of "Miseries"—

"Taking out with you as your aide-de-camp an unsophisticated lad from the neighbouring village, who laughs at you when you

miss hooking a fish rising at a fly, and says, with a grin, 'You can't vasten 'em as my vather does.'

"Telling a long story after dinner, tending to show (with full particulars of time and place) how that, under very difficult circumstances, and notwithstanding very great skill on your part, your tackle had been that morning broken and carried away by a very large fish; and then having the identical fly, lost by you on that occasion, returned to you by one of your party, who found it in the mouth of a trout, caught by him, about an hour after your disaster, on the very spot so accurately described by you—the said very large fish being, after all, a very small one."

The *Angler in Wales* (1834), by Captain Medwin, the friend and fellow traveller of Byron, may be mentioned as an instance of an execrably bad book, which has deservedly received some terrible "slatings." For instance, Chatto says of the author—"he might as well have called his book 'The Angler in Hindostan;'" and this is how another critic and angler epitomizes it—"The book is a medley, and by no means a good one, made up apparently from the odds and ends of some MS. collection of anecdotes. Mesmerism and dog-otters, snuff-taking and second-sight, affectionate terriers and literary lions, portraits of young ladies, beautiful as Diana and bewitchingly familiar with the slang of horse-jockeys, tales of Welsh courtship, scandal, love, lunacy, and murder, 'are jumbled antithetically jowl by cheek.' Even where the narrator deviates into his subject, we glean but a minimum of information from his pages. I have, in my time, fished extensively, and to some purpose, in the lakes and rivers of Wales. Captain Medwin may have done the same, but, if so, he kept his secret with the fidelity of Junius. His book nowhere shows us how it was done. There is little or no useful information about the flies, the seasons, or the stations most favourable to the angler. Instead thereof, a

great deal of space is devoted to fishing with salmon roe, a bait which he seems to think an important novelty, while, at the same time, he shows utter ignorance of the manner in which it is to be made the deadly lure which, under certain circumstances, it too surely is."

Mr. Chatto, just mentioned, himself entered the lists an author in the next year (1835) under the pseudonym of "Fisher;" and his *Angler's Souvenir* is a clever and useful book, and deserving of the last edition published in 1877 with Mr. G. Christopher Davies, no mean angling author, as its editor.

We now come to a book which, though to some extent superseded by other and fuller works, may almost be said to mark a new era of angling literature. It is the *Art of Angling in Scotland*, by Thomas Tod Stoddart, published in 1835. He published other works later on, notably the *Angler's Companion* in 1853, of which no fly-fisherman should fail to obtain a copy when he can. Stoddart is a most practical instructor, and was the first to thoroughly exhaust the subject of fishing with a *worm in clear water*. There does not seem much connection between poets and worms, but Stoddart was one of the former, and his writings show that he felt all the poetry of angling. Another great authority on fly-fishing comes next in the person of Alfred Ronalds, whose *Fly-Fisher's Entomology*, first published in 1836, and since then gone through seven editions, will long remain a standard authority in its particular line. No one who aims at being a scientific fly-fisherman or fly-maker should be ignorant of the contents of this book, the excellently executed plates giving, with some trifling inaccuracies, a coloured representation of the natural fly, and of that to be produced artificially. The book is a great authority, especially for what may be called

Midland Counties waters. In 1839 T. C. Hofland, author, artist, and fisherman, dedicated the first edition of his *British Angler's Manual* to Sir Francis Chantrey. This and subsequent editions are enriched with engravings and woodcuts from pictures and drawings by the author himself and other well-known artists. There are few books on piscatorial shelves which more fully accord with the spirit of a true angler and a true artist.

The year 1840 is associated with three authors of mark. The first is James Wilson (brother of "Christopher North"), author of *The Rod and Gun*, and contributor of many most genial, entertaining and instructive articles on fish and fishing in almost every branch of the art, to *Blackwood's Magazine*. The second is J. Colquhoun, the author of *The Moor and the Loch*, which reached its fifth edition in 1880. There are few books which are more worthy of the favour with which it has been so long received by the naturalist, the sportsman, and even the general reader. Without much pretension to be called a naturalist (so modestly says the author of himself), he has always endeavoured to keep his eyes open as the wilder points of nature were unfolded before him, and no part of his mountain life has given him such unmixed pleasure as watching the minute and tender care of the great Parent of all good in adapting the creatures of the storm to their lonely solitudes, and spreading before them a table in the wilderness. It is this happy mixture of ardour as a sportsman, and fresh devoutness of spirit which imparts so true and lasting a charm to the whole volume. The habits and haunts of birds, beasts, and fish have never been more brightly, truly, and picturesquely described than in these glowing and pleasant pages. Mr. Colquhoun is essentially a gentleman and sportsman; and he may claim to be the

first authority of his time on the wary *Salmo ferox*, and its capture in the larger Scotch lochs. The third author associated with 1840 is a poor shoemaker of Kelso, of the name of John Younger, who had a great local reputation as an angler and fly-dresser. He gave his experiences to the world in his *River Angling for Salmon and Trout*, which a fly-fisherman will do well to read if he comes across it. Younger, too, is a bit of a poet, as several of his compositions quoted in Mr. Henderson's *My Life as an Angler* testify.

Mr. Edward Chitty, Barrister-at-Law, published his very instructive *Illustrated Fly-fisher's Text-book* in 1841; and in the same year Blacker, the well-known fishing-tackle maker of Dean Street, Soho, who died a few years ago, his *Art of Angling*, wherein are illustrated with plates the various stages of the artificial fly before it is finished. In 1842, the articles, which during many years previously had been written by Professor John Wilson for *Blackwood's Magazine*, were published under the title of *The Recreations of Christopher North*, a name which will be associated with angling as long as the sport is pursued. Professor Wilson was a prince among anglers and among men, and though he combined the characters of artist, poet, philosopher, and philanthropist, yet he still stands out as a perfect individuality. Let every angler possess his *Christopher North*, if only as a specimen of angling literature of the most happy, spirited, and withal polished style, though abounding with what might almost be called the "slang" of angling. Just a quotation as a specimen, in which the Professor describes killing trout in Loch Awe when they were "well on":—

"Lie on your oars, for we know the water. The bottom of this shallow bay—for 'tis nowhere ten feet—is in places sludgy, and in places firm almost as green-sward, for we have waded it of

yore, many a time up to our chin, till we had to take to our fins—there! Mr. Yellowlees was in right earnest, and we have him as fast as an otter. There he goes, snoring and snuving along, as deep as he can—steady, boys, steady—and seems disposed to pay a visit to Rabbit Island. There is a mystery in this we do not very clearly comprehend; the uniformity of our friend's conduct becomes puzzling; he is an unaccountable character. He surely cannot be an eel; yet, for a trout, he manifests an unnatural love of mud on a fine day. Row shoreward—Proctor, do as we bid you—she draws but little water; run her bang up on that green line, then hand us the crutch, for we must finish this affair on *terra firma*. Loch Awe is certainly a beautiful piece of water. The islands are disposed so picturesquely, we want no assistance but the crutch. Here we are, with elbow room, and on stable footing; and we shall wind up, returning from the water's edge as people do from a levee, with their faces towards the king. Do you see them yellowing, you Tory? What bellies! Why, we knew by the dead weight that there were *three*, for they kept pulling one against another; nor were we long in discovering the complicated movement of triplets. Pounders each, same weight to an ounce; same family, all bright as stars. Never could we endure angling from a boat. What loss of time getting the *whoppers* whiled into the landing-net! What loss of peace of mind in letting them off, when their snouts, like those of Chinese pigs, were within a few yards of the gunwale; and when, with a last convulsive effort, they whaumped themselves over, with their splashing tails, and disappeared for ever. Now for five flies—wind on our back—no tree within an acre—no shrub higher than the bracken—no reed, rush, or water-lily in all the bay. What hinders that we should, what the Cockneys call, *whip* with a dozen? We have set the lake afeed; epicure and glutton are alike rushing to destruction. Trouts of the most abstemious habits cannot withstand the temptation of such exquisite evening fare, and we are much mistaken if here be not an old dotard—a lean and slippery pantaloon—who had long given up attempting vainly to catch flies, and found it as much as he could do to overtake the slower sort of worms. Him we shall not return to his

native element, to drag out a pitiable existence, but leave him where he lies, to die—he is dead already—

“ ‘ For he is old, and miserably poor.’ ”

Two dozen in two hours we call fair sport, and we think they will average not less, Proctor, than a pound. Lascelles and North against any two in England! We beseech you only look at yonder noses, thick as frogs, as pow heads! There, that was lightly dropped among them, each fatal feather seeming to melt on the water like a snowflake. We have done the deed, Proctor; we have done the deed. We feel that we have five. Observe how they will come to light in succession, a size larger and larger, with a monster at the tail fly. Even so. To explain the reason why would perplex a Master of Arts. Five seem about fifty, when all dancing about together in an irregular figure; but they have sorely ravelled our gear. It matters not, for it must be wearing well towards eight o'clock, and we dine at sunset.”

And yet a few lines more—

“ Whirr, whirr, whirr! *SALMO FEROX*, as sure as a gun! The maddened monster has already run out ten fathoms of chain cable. His spring is not so sinewy as a salmon's of the same size; but his rush is more tremendous, and he dives like one of the damned in Michael Angelo's ‘Last Judgment.’ All the twelve barbs are gorged, and not but with the loss of his torn-out entrails can he escape death. Give us an oar, or he will break the rope. There, we follow him at equal speed, sternmost; but canny canny! for if the devil doubles upon us he may play mischief yet, by getting under our keel. That is noble! There he sails, some twenty fathoms off, parallel to our pinnace, at the rate of six knots, and bearing—for we are giving him the *butt*—right down upon the Laracha Ban, as if towards spawning ground, in the genial month of August; but never again shall he enjoy his love. See! he turns up a side like a house. Ay, that is indeed a most commodious landing place, and ere he is aware of water too shallow to hide his back fin, will be whallopping upon the yellow sand.”

Scrope, another excellent and spirited writer, though taking a more limited range, makes his boy, in 1843, with his *Days and Nights of Salmon-Fishing in the Tweed*. The book, even apart from its angling interest, is well worth reading as a bright and elegant literary composition, in which quaint legend and humorous anecdote were never better told. An enthusiastic angler-author, though he has unbounded admiration for many angling works, says that "*the book of angling has not yet been written*," adding, that "to write it would indeed require more extensive practice than is often attained, or perhaps even desirable, and a singular combination of endowments. We shall hardly see the gifts of Professor Wilson, Sir Humphrey Davy, and Mr. Scrope united in one man; and yet, I confess, little short of such a union would complete my ideal of the author."

Blakey—"Palmer Hackle, Esq."—began publishing his books in 1846, but they hardly rise above the level of mediocrity, though they contain some useful topographical information as to fishing waters in England, Scotland, and Ireland. Edward Fitzgibbon, so long well known and appreciated in the angling columns of *Bell's Life* as "Ephemera," published his *Handbook of Angling* in 1847, and his *Book of the Salmon* three years afterwards. Though many anglers have questioned the correctness of some of his views, both books will hold their own, and will repay careful study, the former especially by the humbler class of anglers who have not salmon and trout fishing at their command.

The Rev. Henry Newland, a "Tractarian" leader in the præ-Ritualistic days, and as able a wielder of the fly-rod as of the pen, published *The Erne; its Legends and its Fly-fishing*, in 1851, and three years later *Forest Scenes in Norway and Sweden; being extracts from the Journal of a*

Fisherman—delightful books of a high literary cast, interspersed with much humour. The present writer often had the pleasure of chatting with him when he was Vicar of St. Mary Church, South Devon, where he died. He was a most charming *raconteur* especially of piscatory incidents. Dr. Badham's *Prose Halieutics; or Ancient and Modern Fish Tattle*, was welcomed by a very large number of readers in 1854. It has been already mentioned as one of the most interesting books of its kind ever written, and it would be almost easier to say what there is not in it than what there is, comprising as it does an almost endless variety of chit-chat, and that, too, of the most learned kind about fish and fishing. Dr. Badham is particularly "great" on opsophagy. In the same year Robert Knox, M.D., who affected to be a scientific naturalist and special authority on Salmonoid biology, cannot be said to have added lustre to angling literature by the publication of his *Fish and Fishing in the lone Glens of Scotland*. Though, perhaps, hardly deserving of the terrible lashing the book and its author get at the hands of Mr. H. R. Francis; still, a writer who lays down angling and ichthyological law in an offensively authoritative manner, muddles up *Salmo salar* and *Salmo fario*, denies the Highlands the credit of being an angling country, and describes the Test as a "quiet muddy stream"—almost puts himself beyond the pale of toleration. It is, however, but fair to the author to say that there is a good deal of interesting reading in his book, apart from its many blemishes.

W. C. Stewart's *Practical Angler; or, the Art of Trout Fishing*, is another of the books which no fly-fisherman should leave unstudied. The first edition of the *Practical Angler* appeared in 1857, and the last in 1877, five years after the author's death. Mr. Stewart was known as one

of the most accomplished trout fishers of his day, and especially in "*clear water*." He elaborates this particular phase of angling, and discusses exhaustively, and with great fairness, all the *veratæ quæstiones* of the fly-fisher's vocation, such as "up" or "down" stream fishing, the colour and make of flies, the pliability of fly-rods, &c. Some "outsiders" are inclined to smile when anglers speak of the education of modern fish ; but this is what Mr. Stewart says on the subject :—

" Much fishing, besides to a certain extent thinning the trout, operates against the angler's killing large takes, by making the remaining trout more wary, and it is more from this cause than the scarcity of trout that so many anglers return unsuccessful from much-fished streams. The waters also now remain brown-coloured for such a short time that the modern angler is deprived, unless on rare occasions, of even this aid to his art of deception ; and the clearness of the water, and the increased wariness of the trout, are the main causes why the tackle of fifty years ago would be found so faulty now. Fifty years ago it was an easy thing to fill a basket with trout ; not so now. Then there were ten trout for one there is now. The colour of the water favoured the angler, and the trout were comparatively unsophisticated. Now filling a basket with trout, at least in some of our southern streams open to the public, when they are low and clear, is a feat of which any angler may be proud. . . . Angling is, in fact, every day becoming more difficult, and consequently better worthy of being followed as a scientific amusement. So far from looking upon the increase of anglers with alarm, it ought to be regarded with satisfaction ; the more trout are fished for, the more wary they become ; the more wary they are, the more skill is required on the angler's part, and, as the skill an amusement requires constitutes one of its chief attractions, angling is much better sport now than it was fifty years ago."

But as we are now finding ourselves in company of contemporary contributors to angling literature, the great majority

of whom are still alive and "plying the angle," it would be beyond our original purpose to do much more than mention some of their names and chief productions. During the last twenty-five years many have been very active both with their rods and pens, and it may be fairly said that success has attended both their piscatory and literary efforts. We need by no means be ashamed of the angling literature of the last quarter of a century. Charles Kingsley, in his *Chalk Stream Studies*, which first appeared in *Fraser's Magazine* for September, 1858, shows us the kind of man an angler can be, and the kind of angler a *man* can be, as he also does in his *Life and Letters*, published by his widow. The first-named little book is a mine of information to the fly-fisher, and charming reading in all respects. The last quotation we shall indulge in is one of his pictures of English scenery:—

"Let the Londoner have his six weeks every year among crag and heather, and return with lungs expanded and muscles braced to his nine months' prison. The countryman, who needs no such change of air and scene, will prefer more home-like though more homely pleasures. Dearer to him than wild cataracts or Alpine glens are the still hidden streams which Bewick has immortalized in his vignettes, and Creswick in his pictures; the long glassy shadow, paved with yellow gravel, where he wades up between low walls of fern-fringed rock, between nut and oak and alder, to the low bar over which the stream comes swirling and dimpling, as the water-ousel flits piping before him, and the murmur of the ring-dove comes soft and sleepy through the wood. There, as he wades, he sees a hundred sights, and hears a hundred tones, which are hidden from the traveller on the dusty highway above. The traveller fancies that he has seen the country. So he has, the outside of it at least; but the angler only sees the inside. The angler only is brought close face to face with the flower and bird and insect life of the rich river banks, the only part of the landscape where the hand of man has never interfered, and the only

part in general which never feels the drought of summer, 'the trees planted by the water-side, whose leaf shall not wither.'"

In 1858, too, Mr. Francis Francis makes his first appearance in print with his *Angler's Register*, and ever since then he has been a busy writer, as the columns of the *Field* and contemporary periodical literature bear witness. His *magnum opus* is *A Book on Angling*, first published in 1867, since which date it has passed through several editions, and is long likely to remain one of the chief and most reliable text-books for anglers of all kinds. Probably no fisherman living has had greater experience in almost all the waters of the United Kingdom, and in all kinds of fishing, and therefore he is one of the safest guides an angler can follow. The medical profession supplies another piscatory author in the person of Mr. W. Wright, "Surgeon-Aurist to her late Majesty Queen Charlotte, &c," who in 1858 published his *Fishes and Fishing* . . . "anatomy of their senses, their loves, passions, and intellects." It is a curious medley of selections apparently from his note-book, but fairly interesting, and flavoured with good anecdotes. "Otter's" *Complete Guide to Spinning and Trolling* first appeared in 1859, and has gone through several editions, as has also his *Modern Angler*, first published in 1864. Captain Alfred, of Moorgate Street, is the "Otter" in question; and as he has had great experience and success as an angler, especially in the Thames and other waters within easy reach of London, those who go the "home circuit" will find his pleasantly written little book most helpful. Captain Alfred is also a most skilful painter of fish.

Another Master in piscatorial Israel, and of almost boundless experience like Mr. Francis Francis, is Mr. H. Cholmondeley Pennell. His first book, *Spinning Tackle*, appeared in 1862, and his *Angler Naturalist, Fishing Gossip*,

and other works, have followed. His *Book of the Pike* is, perhaps, the best piscatorial monograph ever written, and exhaustive of the subject with which it deals. Mr. H. C. Cutcliffe's little book, *The Art of Trout Fishing in Rapid Streams*, 1863, is written mainly in reference to North Devon, but is applicable more or less to *rapid* streams everywhere, and though rather prolix, should be read by all fly-fishers who have to deal with such waters. It had become very difficult to obtain a copy of this book, but Messrs. Sampson Low & Co. have recently issued a new edition. *The Fisherman's Magazine* was published in monthly numbers, under the editorship of Mr. Cholmondeley Pennell, during the years 1864 and 1865, and "by arrangement" ceased to exist when *Land and Water* made its appearance. Anglers should always secure it when they can, as many of our best angling writers contributed to it, and it is replete with all kinds of fishing gossip and miscellaneous articles of interest to all fishermen. The *Autobiography of the late Salmo Salar, Esq.*, by Mr. G. Rooper, made a hit in 1867; and his other works, *Flood, Field, and Forest*, and *Thames and Tweed*, contain pleasant sketches in great variety. Mr. Greville Fennell, almost better known as Greville F. in the pages of the *Field* and other current literature, began to supply anglers in 1867 with *The Rail and the Rod*, which gave them a great deal of information as to waters to be reached by the various main lines of railway, which still for the most part holds good. His *Book of the Roach* (1870) is another well executed piscatorial monograph.

Among works of a semi-pastoral and idyllic character, combined with that of angling proper, Mr. W. Senior's ("Red Spinner") *Waterside Sketches*, 1875, and Mr. G. C. Davies' *Angling Idylls*, 1876, stand out conspicuous. Both

authors have produced other works, the features of which are their pleasant easy style of narrative and accurate picture-painting of angling surroundings. Here comes in for mention one of the most remarkable books ever issued in connection with angling literature. It is entitled *A Quaint Treatise on Flees and the Art a' Artyfichall Flee Making*, and was brought out by Mr. W. H. Aldam, a noted fly-fisherman in his day, in 1876. The treatise was written, according to the title-page, "By an Old Man well known on the Derbyshire streams a century ago," and is printed from the old MS., "never before published," in rare old large type, with double red-line borders and spacious margin. The editorial notes are by Mr. Aldam. The unique feature of the handsome quarto is the introduction of very thick cardboard leaves, containing, in sunk, gilt-edged panels, pattern flies and the materials for making them. Each compartment has the pattern fly made in the best style, the feathers, hackle, silk, hair, and twist, which are necessary for its exact manufacture, each separate, and securely fastened down—an idea which may have been suggested by the earlier editions of Blacker's *Art of Fly-making*, which have specimens of flies wafered to the page. In Mr. Aldam's book there are twenty-two flies given in the way described, and they "kill" as well now as in the days of the "Old Man." But few copies of this unique book were brought out, in consequence of the expense and labour involved in producing each. Its original price was necessarily a high one, but it commands nearly double that now, and is worth it, if only as a work of art; but it is seldom that a copy is found on sale. None but a perfect enthusiast could have conceived and carried out a work like this. Mr. J. P. Wheeldon's *Angling Resorts near London*, published in 1878, is, like all the productions of his facile

pen, full of instruction and interest, and redolent of a genial spirit. Perhaps, when he is less busy with periodical literature, he will supply us with a further instalment of a more permanent character.

In January 1880 Messrs. Satchell & Co. began to issue *The Anglers' Note-Book and Naturalists' Record*, in separate numbers, which formed a volume by the end of June in that year. It is a kind of "Notes and Queries" production, to which many well-known scholars and angling writers contributed; and anglers and others will be glad to hear that a new series is in contemplation. In this year the Messrs. Satchell brought out a new edition of *My Life as an Angler*, by Mr. William Henderson, the first edition of which is most beautifully illustrated by Clement Burlison; and it would not be far wrong to say that this is one of the most important contributions to angling literature of late years. It is one of those books, like "The Complete Angler," whose special charm is that it seems to make the reader personally acquainted with the author, the manner of man he is, or was, and able fully to sympathise with him. There is no modern book upon angling and its surroundings which could be put into the hands of novice or veteran with greater chances of charming both alike. It holds a copious store of information and anecdote, and reflects in every page its author's contented spirit, kindly heart, and ripe experience. A sound and carefully-compiled manual for all kinds of fishing is Mr. J. H. Keene's *Practical Fisherman*, published in 1881. One of its features is that it contains full descriptions of all kinds of fishing-tackle, and admirably plain directions. *The Scientific Angler*, by the late David Foster, of Ashbourne, was a welcome addition to angling literature in 1882. *British Field Sports*, published last year by Mackenzie

of Ludgate Hill, E.C., contains pleasant angling reading. Among recent angling publications of value are several brought out by Messrs. Sampson Low, Marston, & Co. One is entitled *An Angler's Strange Experience*, the character of which may be partly surmised by the additional title of "A Whimsical Medley, and an Of-Fish-all Record without A-bridge-ment. By Cotswold Isys, M.A., Fellow of All-soles, late Scholar of Winchester. Now Ready. Profusely Illustrated in a Style never before App-roach-ed." The second is *Float Fishing and Spinning in the Nottingham style*, by J. W. Martin ("Trent Otter"), which Thames anglers and others wedded to their own style of tackle and fishing would do well to read. The third is a revised edition of Michael Theakston's *British Angling Flies*, by Mr. F. M. Walbran. The first edition was published in 1862, but has long been out of print. It received the high commendation of Charles Kingsley, in his *Chalk Stream Studies* above mentioned, and was well worth reviving. It is now improved by a modification of the confusing nomenclature of flies adopted by the author. *The Angler's Complete Guide and Companion*, by Mr. G. Little, the well-known fishing-tackle maker of Fetter Lane, E.C. (who, by the way, has most deservedly been awarded one of the Gold Medals and other distinctions at the Fisheries Exhibition), is among the last contributions to angling literature, and deserving of special mention for the seventy-six hand-coloured illustrations of the best known flies. May we not expect some contribution to angling literature from the pen of that accomplished fisherman, Mr. A. G. Jardine? It would be more than welcomed by all anglers.

From this brief survey of the angling literature of the present century, even though many names are omitted from it, it will be seen that it has flowed on in a continuous

and increasing stream. Judging from all appearances, it is likely to continue so to do. The Fisheries Exhibition, by setting every one talking about fish and fishing, has established what may almost be called an "ichthyomania;" and the rapidly increasing number of anglers will naturally stimulate angling authorship. Moreover, as there is no finality in the art of angling, and fish become more and more "educated," so that the angler has to be constantly refining upon his tackle, lures and methods, dissertations on the subject in all its branches follow almost as a matter of course. Thus "of making of many books" on angling, we may presume, there will be "no end"; but, however many there be, and however interesting and useful in their way anglers and would-be anglers may find them, they must bear in mind the caution given by Izaak Walton in his "Epistle to the Reader":—

"Now for the art of catching fish, that is to say, how to make a man that was none *to be an angler by a book*. He that undertakes it shall undertake a harder task than Mr. Hales, that in a printed book undertook to teach the art of fencing, and was laughed at for his labour. Not but that many useful things might be observed out of that book, but that the art was not to be taught by words; *nor is the Art of Angling.*"

CHAPTER VII.

THE ENGLISH POETS ON FISHING.

RIGHTLY has a poet observed that—

“The power of waters over the minds of poets has been acknowledged from the earliest ages ; through the *flumina amem sylvasque inglorius* of Virgil, down to the sublime apostrophe to the great rivers of the earth by Armstrong, and the simple ejaculation of Burns :—

“ ‘The Muse na Poet ever fand her,
Till by himsel’ he learned to wander
Adown some trotting burn’s meander
And no think lang.’ ”

This has been partly testified to by the quotations already given in chapter II. from ancient poetical authors, whose theme has been fish and fishing, many of whom have been happy both in themselves and in their English translators. We now come to the English piscatory poets themselves. But here, again, there is some little difficulty as to who can fairly be included in the category ; and perhaps it would not be well to draw too hard and fast a line in this manner, but to include those who make more or less lengthy allusions to fishing and sing the praises of angling.

It would savour of optimism to argue that English piscatory poetry generally maintains a high standard ; but we cannot help thinking that Mr. Westwood is a little hard on our authors when he says, “To some three or four of them may be assigned a place—shall we say midway, by

courtesy?—on the ledges of Parnassus; the rest are innocent of all altitudes whatsoever, except those of Grub Street garrets, or the stilts of an absurd vanity." Many of them have taken admirable advantage of what may be called the "surroundings" of angling, and have dressed up the art itself, which, at the best, only offers a limited field for description, with true and beautiful pictures of the scenes amid which it is followed. One of the great charms of angling is that, of all sports, it affords the best opportunities of enjoying the wonders and beauties of nature; while, at the same time, it develops a love of nature, and creates a taste for the study of various celestial and terrestrial phenomena. This sentence may sound like an introduction to a heavy essay; but it is true that whatever be the season of the year, whether the angler be casting his fly on the early rivers of the west of England or northern Caledonia, mid the cold winds and storms of February and March, or later on beneath the more genial skies of April and May, or basking in the summer's sun on the bosom of the Thames, as he is lazily indifferent whether his bait tempts the fish or not, or pursuing his pastime during the soft autumn days, or the chill and short daylight hours of winter, whether he be strolling along the margin of the swift-rushing streams of Wales and Scotland, with mountain and moorland round him, or of the more gently flowing rivers of the South, which meander through the rich water-meadows curtained by hanging woods, or angling patiently on lonely loch or by side of sedgy pool—the sights and sounds of nature are ever present to him, as she reveals herself in her various moods and phases. It is not, of course, meant that all anglers are keen lovers of nature, or observant of natural phenomena; but the great majority certainly are so, and become more and more interested every year in all

they see and hear about their paths. He spake truly in the "Old Play" :—

" Trust me, there is much 'vantage in it, sir ;
You do forget the noisy pother of mankind,
And win communion with sweet Nature's self,
In plying our dear craft."

And so not unfrequently, nay, it very often happens that the angler is led to investigate the habits of the birds, beasts, and insects, which present themselves to him as he follows his vocation, and the marvels of the lives of the innumerable creatures which tenant the earth, air, and water ; and thus he becomes an enthusiastic, though, of course, not always a scientific naturalist ; while the trees of the forest and the flowers of the field are another endless source of interest and study.

And further, though all anglers cannot be credited with the piety of Walton, there can be little doubt but that very many, as Pope writes, " look through Nature up to Nature's God." The old lines which date back as far as 1706, are in the main still true :—

" Angling tends our bodies to exercise,
And also souls to make holy and wise,
By heavenly thoughts and meditation—
This is the angler's recreation."

And many of those who seek recreation with their angle amid the works of nature, realise the words and thoughts of old John Dennys, where he says :—

" All these and many more of his creation,
That made the heavens, the angler oft doth see,
And takes therein no little delectation
To think how strange and wonderfull they bee,
Framing thereof an inward contemplation
To set his thoughts from other fancies free ;
And while he looks on these with joyful eye,
His mind is wrapt above the starry skie."

Thus there is a certain tendency for the angler to become a poet, or at least to become imbued with poetic feelings springing from an elevated source.

The early English poets can hardly be expected to contribute much to the literature of the angle; but here is a little bit from Chaucer's *Complaynte of Mars and Venus* (1475):—

“ Hit semeth he hath to lovers enemyti,
And lyke a fissher, as men al may se,
Bateth hys angle-hoke with summe pleasaunce
Til mony a fissch ys wode so that he be
Sesed therwith; and then at erst hath he
Al his desire, and therwith al myschaunce,
And thogh the lyne breke he hath penaunce;
For with the hoke he wounded is so sore,
That he his wages hathe for evermore.”

And one from John Gower (1483):—

“ And as the fisher on his bait
Sleeth, when he first seeth the fishes taste,
So when he seeth time ate last,
That he may worche an other wo,
Shall no man tornen him ther fro,
That hate will his felonie
Fulfill and feigne compaignie.”

Nor must we expect much piscatory poetry in the sixteenth century. Spenser can hardly be claimed by the angling fraternity as one of their songsters, though the contemplation of the multitudes of the various inhabitants of the waters made him exclaim—

“ Oh what an endlesse work has he in hand
Who'd count the sea's abundant progeny,
Whose fruitful seed far passeth that on land,
And also theirs that roame in th' azure sky,—
So fertile be the floods in generation,
So vast their numbers, and so numberless their nation.”

He sings, too, of "the Medwaies silver streams," in which the nymphs were wont—

"With hook or net, barefooted wantonly
The pleasant dainty fish to entangle or deceive."

But Francis Quarles may fairly be claimed by anglers as a poet-angler, as he not only caught but sang of

"The broad-side bream,
The wary trout, that thrives against the stream ;"

and of

"The well-grown carp, full laden with her spawn."

He lived on well in the seventeenth century, and, judging from the style, there can be little doubt but that Walton wrote the "Address to the Reader" of his *Shepherd's Eclogues*, which were printed in 1646 by John and Richard Marriott, the latter of whom was Walton's publisher and intimate friend.

Just before the close of the sixteenth century we find the following in Sabie's *Fisherman's Tale* (1595). After describing the delight of a spring morning, the poet continues :—

"I shakt off sleepe, and tooke in hand a recde,
A recde whereto was bounde a slender line,
And crooked hooke, wherewyth, for my disport,
Walking along the bankes of silver lakes,
Oftimes I vsed, with false deceiuing baytes,
To pluck bright-scaled fish from christall waves.
Forthwith I bended steps vnto the streames,
And pleasant meares, not far from mine abode,
Needless it were here to rehearse what joyes
Each thing brought then vnto my dolefull minde.
The little menowes leapt aboue the waues
And sportive fish like wanton lambes did play."

Old Michael Drayton, whom Charles Lamb eulogises as the panegyrist of his native land, is in full song at the

beginning of the seventeenth century, his *Polyolbion* having been published in 1613. Hymning many rivers, "our flood's Queen, Thames," "the stately Severn," and "the crystal Trent," he naturally sings of their inhabitants, mention being made of them in the 6th, 25th, and 26th "Songs" of the *Polyolbion*, and other of his compositions. In one he introduces a woodman, a shepherd, and a fisherman, each extolling the merits of his vocation; and it is just possible that Walton got from this his idea of "interlocutors." Anyhow, he was on intimate terms with Walton, who speaks of him as "Michael Drayton, my honest old friend," just before quoting from the *Polyolbion* the description of the salmon leaping, which runs thus:—

"And when the Salmon seeks a fresher stream to find
 (Which hither from the sea comes, yearly, by his kind),
 As he towards season grows; and stems the wat'ry tract
 Where *Tivy*, falling down, makes an high cataract,
 Forc'd by the rising rocks that there her course oppose,
 As tho' within her bounds they meant her to inclose;
 Here, when the labouring fish does at the foot arrive,
 And finds that by his strength he does but vainly strive,
 His tail takes in his mouth, and, bending like a bow
 That's to full compass drawn, aloft himself doth throw,
 Then springing at his height, as doth a little wand
 That bended end to end, and started from man's hand,
 Far off itself doth cast; so does the Salmon vault:
 And if, at first, he fail, his second summersault
 He instantly essays, and, from his nimble ring
 Still yerking, never leaves until himself he fling
 Above the opposing stream."

We hope we shall not be considered guilty of heresy when we venture to suggest that these lines seem to lag somewhat, wantingⁿ in a kind of "quickness" which would be suitable to the subject. His enumeration of the various fish which inhabit the Trent, second only as it is to the Thames for its prolificness in variety of species, is always

worth quoting ; and it is strange that several authors on angling make the mistake of associating the passage with the Severn. It occurs in the 26th song ; and the river goddess or rather the river personified, thus sings her own praises with a good deal of haughtiness, beginning with the fanciful idea that her name is the French *trente*.—

“ What should I care at all, from what my name I take,
That *Thirty* doth import, that thirty rivers make
My greatness what it is, or thirty abbeys great,
That on my fruitful banks, times formerly did seat :
Or thirty kinds of fish, that in my streams do live,
To me this name of *Trent* did from that number give.”

* . * * *

After comparing herself with the Thames and Severn from a geographical point of view, the self-complacent lady goes on to say—

“ Their banks are barren sands, if but compar'd with mine
Through my perspicuous breast, the pearly pebbles shine ;
I throw my crystal arms along the flow'ry valleys
Which lying sleek, and smooth, as any garden-alleys,
Do give me leave to play, whilst they do court my stream,
And crown my winding banks with many an anadem :
My silver-scal'd skuls about my streams do sweep,
Now in the shallow fords, now in the falling deep :
So that of every kind, the new-spawn'd numerous fry
Seem in me as the sands that on my shore do lie.
The *Barbell*, than which fish, a braver doth not swim,
Nor greater for the ford within my spacious brim,
Nor (newly taken) more the curious taste doth please ;
The *Greling*, whose great spawn is big as any pease ;
The *Pearch* with pricking fins, against the Pike prepar'd,
As nature had thereon bestow'd this stronger guard,
His daintiness to keep (each curious palate's proof),
From his vile ravenous foe : next him I name the *Ruffe*,
His very near ally, and both for scale and fin,
In taste, and for his bait (indeed) his next of kin ;
The pretty slender *Dare*, of many call'd the *Dace*,
Within my liquid glass, when Phœbus looks his face,

Oft swiftly as he swims, his silver belly shows,
 But with such nimble sleight, that ere ye can disclose
 His shape, out of your sight like lightning he is shot.
 The *Trout* by Nature mark'd with many a crimson spot,
 As though she curious were in him above the rest,
 And of fresh-water fish did note him for the best ;
 The *Roche*, whose common kind to every flood doth fall ;
 The *Chub* (whose neater name), which some a *Chevin* call,
 Food to the tyrant *Pike* (most being in his power),
 Who for their numerous store he most doth them devour ;
 The lusty *Salmon* then, from *Neptune's* wat'ry realm,
 When as his season serves, stemming my tideful stream,
 Then being in his kind, in me his pleasure takes,
 (For whom the fisher then all other game forsakes)
 Which bending of himself to th' fashion of a ring,
 Above the forc'd wears, himself doth nimbly fling,
 And often when the net hath dragg'd him safe to land,
 Is seen by natural force to 'scape his murderer's hand ;
 Whose grain doth rise in flakes, with fatness interlarded,
 Of many a liquorish lip, that highly is regarded.
 And *Humber*, to whose waste I pay my wat'ry store,
 Me of her *Sturgeons* sends, that I thereby the more
 Should have my beauties grac'd, with something from him sent :
 Not *Ancum's* silvered *Eel* exceedeth that of *Trent* ;
 Though the sweet-smelling *Smelt* be more in *Thames* than me,
 The *Lamprey*, and his *less*, in *Severne* general be ;
 The *Flounder* smooth and flat, in other rivers caught,
 Perhaps in greater store, yet better are not thought :
 The dainty *Gudgeon*, *Loche*, the *Minnow*, and the *Bleake*,
 Since they but little are, I little need to speak
 Of them, nor doth it fit me much of those to reck,
 Which everywhere are found in every little beck ;
 Nor of the *Crayfish* here, which creeps amongst my stones,
 From all the rest alone, whose spell is all his bones :
 For *Carpe*, the *Tench*, and *Bream*, my other store among,
 To lakes and standing pools, that chiefly do belong,
 Here scouring in my fords, feed in my waters clear
 Are muddy fishing ponds to that which they are here.*

In reference to this passage, it may be noted that, owing
 to certain reasons, Trent salmon gradually became very

scarce some years ago; but they have shown in greater numbers during the last two or three seasons; and it is evident that under proper treatment the Trent might be made a good salmon river. Crayfish are to be found in some of its tributaries, or were so some thirty years ago. The "less" mentioned in connection with the *lamprey* means the lamperne.

Milton can hardly be called a piscatorial poet, though he sings of the evolutions of the myriads of "the voiceless daughters of the unpolluted sea" (*Æschylus*), which—

"Part single or with mate
Graze the seaweed, their pasture, and through groves
Of coral stray; or sporting with quick glance,
Show to the sun their wav'd coats dropp'd with gold;
Or from their pearly shells come forth to seek
Moist nutriment; or under rocks their food
In jointed armour watch."

But, oh, the fall from Milton to William Browne! and yet the author of *Britannia's Pastorals*, published 1613, may claim some attention from angling readers, who, however, will hardly think that a pike in the following passage is a good selection as a worm-taking fish, or the suggestion that the line should be handled a proper one—

"Now as an *Angler*, melancholy standing,
Upon a greene bancke yeelding roome for landing,
A wrigling yealow worme thrust on his hooke
Now in the midst he throwes, then in a nooke;
Here puls his line, there throwes it in againe,
Mendeth his Corke and Baite, but all in vaine,
He long stands viewing of the curled stream;
At last a hungry *Pike*, or well-growne *Bream*,
Snatch at the worme, and hasting fast away,
He, knowing it a Fish of stubborne sway,
Puls up his rod, but soft; (as having skill);
Wherewith the hooke fast holds the Fishe's gill—

Then all his line he freely yeeldeth him,
 Whilst furiously all up and downe doth swimme
 Th' insnared Fish, here on the toppe doth scud,
 There underneath the banckes, then in the mud ;
 And with his franticke fits so scares the shole,
 That each one takes his *hyde* or starting hole ;
 By this the *Pike* cleane wearied, underneath
 A *Willow* lyes, and pants (if Fishes breath),
 Wherewith the *Angler* gently puls him to him ;
 And least his hast might happen to undoe him
 Layes downe his rod, then takes his line in hand,
 And by degrees getting the Fish to land,
 Walks to another Poole, at length is winner
 Of such a dish as serves him for his dinner."

We have already anticipated the *Secrets of Angling*, by J. D., in Chapter III., for the reason there given ; and we will now pass on to Phineas Fletcher—a by no means poetical name—who published his *Sicelides*, a piscatory, in 1631, and the *Purple Island*, "together with Piscatorie Eclogs," in 1633. He is mentioned as "an excellent divine and an excellent angler," by Walton, who also calls his Eclogues "excellent"; and Quarles speaks of him as "the Spenser of this age."

H. Vaughan, "the Silurist," also, in 1640, sings the happiness of the contented angler :—

"On shady banks sometimes he lyes,
 Sometimes the open current tyes,
 Where with his line and feathered flye
 He sports and takes the scaly fry."

He also wrote some charming Latin verses on a salmon which he caught himself, and sent to his friend Dr. Powell.

The song written by Dr. Donne in 1635, and quoted by Walton, is worth reproducing :—

- "Come live with me, and be my love,
And we will some new pleasures prove,
Of golden sands and crystal brooks,
With silken lines, and silver hooks.
- "There will the river whisp'ring run,
Warm'd by the eyes more than the sun ;
And there the enamel'd fish will stay
Begging themselves they may betray.
- "When thou wilt swim in that live bath,
Each fish, which every channel hath,
Most amorously to thee will swim,
Gladder to catch thee, than thou him.
- "If thou to be so seen, beest loath
By sun or moon, thou dark'nest both ;
And if mine eyes have leave to see,
I need not their light, having thee.
- "Let others freeze with angling reeds,
And cut their legs with shells and weeds,
Or treacherously poor fish beset
With strangling shares or windowy net ;
- "Let coarse bold hands, from slimy nest,
The bedded fish in banks outwrest ;
Let curious traitors sleave silk flies,
To 'witch poor wand'ring fishes' eyes.
- "For thee, thou need'st no such deccit,
For thou thyself art 'hine own bait :
That fish that is not catcht thereby,
Is wiser far, alas, than I."

This is quoted by Walton in the "Fourth Day," and it is in imitation of that sung by the milkmaid in the "Third Day," which is attributed to the sweet-singing Christopher Marlowe.

And now we must refer to Izaak Walton himself as a poet in verse, though the *Complete Angler* itself is sufficient to testify to him as one in prose, for, as Coleridge said, the

true antithesis of poetry is not prose, but science. This is "The Angler's Wish," which first appeared in the third edition, and was, as he (*Piscator*) says, of his own "composure":—

"I in these flowery meads would be :
 These crystal streams should solace me ;
 To whose harmonious bubbling noise
 I with my angle would rejoice :
 Lit here, and see the turtle-dove
 Court his chaste mate to acts of love :

"Or, on that bank, feel the west wind
 Breathe health and plenty : please my mind,
 To see sweet dewdrops kiss these flowers,
 And then washed off by April showers :
 Here, hear my Kenna sing a song ;
 There, see a blackbird feed her young,
 Or a leverock build her nest :
 Here, give my weary spirits rest,
 And raise my low-pitch'd thoughts above
 Earth, and what poor mortals love :
 Thus free from lawsuits and the noise
 Of princes' courts, I would rejoice :

"Or, with my Bryan, and a book,
 Loiter long days near Shawford-brook ;
 There sit by him, and eat my meat,
 There see the sun both rise and set :
 There bid good morning to next day ;
 There meditate my time away,
 And angle on ; and beg to have
 A quiet passage to a welcome grave."

In the "Fourth Day" *Piscator* sings another song, which begins—

"O the gallant fisher's life !
 This the best of any," &c.

This was chiefly written by J. Chalkhill, but from what *Piscator* says after singing it, to the effect that he had forgotten part of it, and was forced to "patch it up" of his

"own invention," it is evident that a considerable portion of the words is Walton's. They bear additional testimony to his poetical talents.

It may not be out of place here to quote two or three stanzas of the "Angler's Song" (by some anonymous author), which occurs in the "Third Day" :—

"As inward love breeds outward talk ;
The hound some praise, and some the hawk,
Some, better pleas'd with private sport,
Use tennis ; some a mistress court ;
But these delights I neither wish
Nor envy, while I freely fish.

"Who hunts doth oft in danger ride ;
Who hawks lures oft both far and wide ;
Who uses games shall often prove
A loser ; but who falls in love
Is fetter'd in fond Cupid's snare :
My angle breeds me no such care.

"Of recreation there is none
So free as fishing is alone
All other pastimes do no less
Than mind and body both possess :
My hand alone my work can do,
So I can fish and study too.

"I care not, I, to fish in seas—
Fresh rivers best my mind do please,
Whose sweet calm course I contemplate,
And seek in life to imitate ;
In civil bounds I fain would keep,
And for my past offences weep.

"But yet, though while I fish, I fast,
I make good fortune my repast ;
And thereunto my friend invite,
In whom I more than that delight ;
Who is more welcome to my dish
Than to my angle was my fish."

The "Angler's Song," beginning with the words "Man's life is but vain," &c., which occurs in the "Fourth Day," appears in the first edition of *The Complete Angler*. The music, with old-fashioned diamond-headed notes, is curiously printed, that for two voices being on one page (216) in the ordinary way, but that for the other voice, on the next page (217), is printed upside down, so that the singers standing opposite to one another, and holding the book, would each have his own music properly presented to him.

Cotton, Walton's friend and literary coadjutor, also wooed the muses, though perhaps not with great success. In his *Retirement*—"Stanzas Irreguliers to Mr. Izaak Walton"—he shows poetic feeling, but some disregard of rhythm. His favourite river, the Dove, and his desire to dwell for ever quietly, is his theme. He exclaims in Dovedale :—

"Good God ! how sweet are all things here !
 How beautiful the fields appear !
 How cleanly do we feed and lie !
 Lord ! what good hours do we keep !
 How quietly we sleep !
 What peace ! what unanimity !
 How innocent from the lewd fashion
 Is all our business, all our recreation !

* * * *

"Oh my beloved nymph ; fair Dove ;
 Princess of rivers, how I love
 Upon thy flowery banks to lie ;
 And view thy silver stream,
 When gilded by a summer's beam,
 And in it all thy wanton fry
 Playing at liberty
 And, with my angle, upon them
 The all of treachery
 I ever learnt, industriously to try.

Most Midland people (as the writer observed when

recently paying a piscatorial visit to Shardlow, on the Trent) pronounce the *o* in Dove like the *o* in "rove," but here Cotton makes "Dove" rhyme with "love," as ordinarily sounded.

Another of Cotton's angling pieces begins with the stanza—

" Away to the brook,
All your tackle outlook ;
Here's a day that is worth a year's wishing.
See that all things be right,
For 'tis a very spight
To want tools when a man goes a-fishing."

And further on we are hurried—

" Away, then away,
We lose sport by delay ;
But first leave our sorrows behind us ;
If misfortune do come,
We are all gone from home,
And a-fishing she never can find us."

Sir Henry Wotton, Provost of Eton College, another intimate friend of Walton, and an ardent angler, discoursed well both in prose and poetry of his favourite pastime. Walton quoted him in the "First Day" and elsewhere. Here are two pretty stanzas :—

" This day damc Nature seem'd in love ;
The lusty sap began to move ;
Fresh juice did stir th' embracing vines ;
And birds had drawn their valentines.

"The jealous trout, that low did lie,
Rose at a well-dissembled fly ;
There stood my Friend, with patient skill,
Attending of his trembling quill."

The "Friend" was probably Walton.

Though hardly to be called poetry, the following lines of

"Napour Notpole," written in old Barker's *Delights*, are very truthful up to the present hour :—

"Cards, dice, and tables pick thy purse,
 Drinking and drabbing being a curse ;
 Hawking and hunting spend thy chink,
 Bowling and shooting end in drink.
 The fighting-cock and the horse-race
 Will sink a good estate a-pace ;
 Angling doth bodyes exercise,
 And maketh soules holy and wise
 By blessed thoughts and meditation.
 This, this the angler's recreation ;
 Health, profit, pleasure, mix't together,
 All sports to this not worth a feather."

Waller, whose poem "On a Girdle" will live as long as the English language, has among his *Meditations* one "On Fish," and as he has several allusions to angling in his writings, he may be claimed for our purpose. We find there were lady-anglers in his day, as he sings of the Court beauties of Charles II.'s reign who angled—perhaps in more ways than one—in St. James's Park :—

"Beneath, a shole of silver fishes glides,
 And plays about the gilded barges sides ;
 The ladies angling in the chrystal lake
 Feast on the waters with the prey they take ;
 At once victorious, with their lines and eyes,
 They make the fishes and the men their prize."

Apropos of lady-anglers, who now number in their increasing ranks the Marchioness of Lorne (Princess Louise), and have been doing wondrous execution among the salmon northwards this autumn, the following *jeu d'esprit* by Mr. W. G. Clarke, late public orator at Cambridge may be quoted here. The *Field* having announced that the beautiful Miss —— had caught a salmon of

seventeen pounds weight, Mr. Clarke put these words into the dying fish's mouth :—

“ Not artificial flies my fancy took,
Nature's own magic lured me to your hook ;
Play me no more—no thought to 'scape have I—
But land me, land me, at your feet to die.”

Sir Harris Nicolas, in his first edition of *The Complete Angler* (1836), mentions a poem of Waller's “On a Lady fishing with an Angle,” commencing—

“ See where the fair Clorinda sits.”

The MS., he says, was in the library of the Royal Society, but he was unable to obtain a sight of it. The writer of these notes regrets that he is unable to say whether such a MS. really exists.

Is Bunyan, who wrote in the latter half of the seventeenth century, among the piscatory poets? At all events, in his *Apology for his Book* he bids us observe the angler—

“ You see the ways the Fisherman doth take
To catch the fish : what engines doth he make !
Behold ! how he engageth all his wits :
Also his snares, lines, angles, hooks and nets ;
Yet fish there be, that neither hook nor line,
Nor snare, nor net, nor engine can make thine ;
They must be grop'd for, and be tickled too
Or they will not be catch'd, whate'er you do.”

The *Innocent Epicure*, already alluded to in connection with the authors of the *Universal Angler* (5th edition of *Complete Angler*), was an anonymous poem on “The Art of Angling,” published in 1697. “Antithetical periods and smooth classicisms” are its features. Thus *Esox lucius* is introduced—

"Go on, my Muse, next let thy numbers speak
That mighty Nimrod of the streams, the Pike,"

and so forth.

Altogether, the piscatory poets of the seventeenth century do not present a very strong list, though J. D. is a literary host in himself. The dramatists of the period do not come to our aid to any great degree, though passages from "rare" Ben Jonson, Dekkar, Beaumont and Fletcher, Massinger, and others, as bearing on or illustrative of the "ars piscatoria," might be quoted. Shakespeare, however, has been claimed as a poet of the angler, and as an angler too. A large number of passages may be adduced from his plays to illustrate him in the first-named character, and these have been collected very recently in a charming little book by the Rev. H. N. Ellacombe, M.A., entitled *Shakespeare as an Angler* (Elliot Stock, Paternoster Row); and the author has done his best to show that he was also a follower of the gentle craft, arguing this from his use of many technical angling terms, correct ichthyological descriptions of fish, use of fishing proverbs, and his loving descriptions of brooks and running streams and river scenery. The little book will repay perusal at the hands both of the lovers of Shakespeare and the lovers of the angle, but the general impression will probably be that the author somewhat labours in his self-imposed task, and is open to the charge of proving too much.

It is a modern fashion to prove that Shakespeare was a master and follower of almost every conceivable art, science, and pastime. Thus one author has elaborated the poet "as a divine," another "as a physician," a third "as a lawyer," and so on, as a soldier, sailor, &c., *ad infinitum*; and Mr. Ellacombe has also worked him out "as a

gardener." But though Dr. Johnson rightly said: "He that will understand Shakespeare must not be content to study him in the closet; he must look for his meaning among the sports of the field;" and, it might be added, in the history and practice of all the subjects to which he alludes; still, we must not conclude that the poet necessarily followed personally this or that particular vocation, of the details of which he shows much intimate knowledge. The truth is, that Shakespeare was a man of wondrous and most comprehensive information on a multitude of subjects, however he may have acquired it, and was able to use the correct technical terms connected with any matter he handled. But to argue from such use, or from that of proverbial and common-parlance expressions of his day, that he was personally associated with any particular matter to which they refer, strikes one as unreasonable as to infer that a person must be given to horse-racing because he uses phrases and expressions which the turf has caused to become incorporated, as it were, with the English language. Shakespeare is traditionally associated with something more than a love of poaching, which seems still an instinct in the nature of even civilised man; but it would be manifestly unfair to say that he was given to "foxing" trout, because he makes one of his characters in *Twelfth Night* say—

"Lie thou there; for here comes the trout,
That must be caught with tickling."

Very probably, indeed, Shakespeare, both in his early and latter years, fished in the Stratford Avon and elsewhere, but that his writings show him to have been an angler must be looked upon rather as a "pious opinion" rather than as necessary to be held as an article of faith.

But this is somewhat of a digression ; and we must get on to the eighteenth century, which, though it has been called a "leaden" period as regards literature generally, is prolific of piscatory poets of no mean attainments. Among these Pope may be first mentioned, as he was busy versifying at the beginning of it. His name rightly finds a place in the *Bibliotheca Piscatoria* and he is likely long to remain dear to a large body of anglers because he so sweetly sings their favourite river, "Old Father Thames" and "The Fisher's Punt." The following passage from *Windsor Forest* (1713) is known to all disciples of Izaak Walton—

"In genial spring, beneath the quivering shade,
Where cooling vapours breathe along the mead,
The patient fisher takes his silent stand,
Intent, his angle trembling in his hand :
With looks unmov'd, he hopes the scaly breed,
And eyes the dancing cork, and bending reed.
Our plenteous streams a various race supply—
The bright-ey'd perch, with fins of Tyrian dye ;
The silver eel, in shining volumes roll'd ;
The yellow carp, in scales bedropp'd with gold ;
Swift trouts, diversified with crimson stains ;
And pikes, the tyrants of the wat'ry plains.

But Gay is specially the angler-poet of this period, and perhaps it may be said the angler's poet of all periods. The stock-in-trade quotations, the well-known passages in his writings descriptive of angling, never seem to tire. We learn from himself the kind of fishing he best liked—

"I never wander where the bord'ring reeds
O'erlook the muddy stream, whose tangling weeds
Perplex the fisher ; I nor chuse to bear
The thievish nightly net, nor barbed spear ;
Nor drain I ponds the golden carp to take,
Nor trowle for pikes, dispeoplers of the lake.

Around the steel no tortur'd worm shall twine,
 No blood of living insect stain my line.
 Let me, less cruel, cast the feather'd hook,
 With pliant rod athwart the pebbled brook,
 Silent along the mazy margin stray,
 And with the fur-wrought fly delude the prey."

The above lines are from his *Rural Sports*, inscribed to Pope (1720); and further on, in the same poem he describes the fly-fisher, who ties his own flies on at the stream-side—

" Mark well the various seasons of the year,
 How the succeeding insect race appear.
 In their revolving moon one colour reigns,
 Which in the next the fickle trout disdains.
 Oft have I seen a skilful angler try
 The various colours of the treach'rous fly ;
 When he with fruitless pain hath skimm'd the brook,
 And the coy fish rejects the skipping hook,
 He shakes the boughs that on the margin grow,
 Which o'er the stream a waving forest throw ;
 When, if an insect fall (his certain guide),
 He gently takes him from the whirling tide ;
 Examines well his form with curious eyes,
 His gaudy vest, his wings, his horns, and size ;
 Then round his hook the chosen fur he winds,
 And on the back a speckled feather binds ;
 So just the colours shine through every part,
 That Nature seems to live again in Art."

And the poet is evidently one of the "up-stream" fishing advocates, for he goes on—

" Far *up the stream* the twisted hair he throws,
 Which down the murmuring current gently flows ;
 When if or chance or hunger's powerful sway
 Directs the roving trout this fatal way,
 He greedily sucks in the twining bait,
 And tugs and nibbles the fallacious meat."

Not every poet would essay to describe the practical work of fly-tying, but Gay does—

“ You now a more delusive art must try,
And tempt their hunger with the curious fly.
To frame the little animal provide
All the gay hues that wait on female pride :
Let Nature guide thee ; sometimes golden wire
The shining bellies of the fly require ;
The peacock’s plumes thy tackle must not fail,
Nor the dear purchase of the sable’s tail.
Each gaudy bird some slender tribute brings,
And lends the growing insect proper wings :
Silks of all colours must their aid impart,
And ev’ry fur promote the fisher’s art.
So the gay lady, with expensive care,
Borrows the pride of land, of sea, and air ;
Furs, pearls, and plumes, the glittering thing displays,
Dazzles our eyes, and easy hearts betrays.”

And this is how you must work your fly—

“ Let not thy wary step advance too near,
While all thy hope hangs on a single hair ;
The new-formed insect on the water moves,
The speckled trout the curious snare approves.
Upon the curling surface let it glide,
With nat’ral motion from thy hand supplied,
Against the stream now let it gently play,
Now in the rapid eddy roll away :
The scaly shoals float by, and, seized with fear,
Behold their fellows tost in thinner air ;
But soon they leap, and catch the swimming bait,
Plunge on the hook, and share an equal fate.”

But, though by choice a fly-fisher, Gay did not disdain to use the worm, or to point out the proper kind of one for a trout, and how to “scour” it—

“ You must not every worm promiscuous use ;
Judgment will tell thee proper bait to choose ;
The worm that draws a long immod’rate size
The trout abhors, and the rank morsel flies ;

And if too small, the naked fraud's in sight,
And fear forbids, while hunger does invite.
Those baits will best reward the fisher's pains
Whose polish'd tails a shining yellow stains :
Cleanse them from filth, to give a tempting gloss,
Cherish the sullied reptile race with moss ;
Amid the verdant bed they twine, they toil,
And from their bodies wipe their native soil."

Our last extract must be the description of the angler's
tussle with a big salmon—

" If an enormous salmon chance to spy
The wanton errors of the floating fly,
He lifts his silver gills above the flood
And greedily sucks in th' unfaithful food,
Then downright plunges with the fraudulent prey,
And bears with joy the little spoil away :
Soon in smart pain he feels the dire mistake,
Lashes the wave, and beats the foamy lake.
With sudden rage he now aloft appears,
And in his eye convulsive anguish bears :
And now again, impatient of the wound,
He rolls and wreaths his shining body round,
Then headlong shoots beneath the dashing tide ;
The trembling fins the boiling wave divide.
Now hope exalts the fisher's beating heart,
Now he turns pale, and fears his dubious art ;
He views the tumbling fish with longing eyes,
While the line stretches with th' unwieldy prize ;
Each motion humours with his steady hands,
And one slight hair the mighty bulk commands ;
Till tired at last, despoil'd of all his strength,
The game athwart the stream unfolds his length.
He now, with pleasure, views the gasping prize
Gnash his sharp teeth, and roll his blood-shot eyes ;
Then draws him to the shore, with artful care,
And lifts his nostrils in the sick'ning air :
Upon the burthen'd stream he floating lies,
Stretches his quivering fins, and gasping dies."

Gay was a North Devon man, and doubtless worked its many trout and salmon waters.

Thomson, who also lived in the early part of the eighteenth century, was hardly less a poet of the angle than Gay, and his experience as a fly-fisher, at least in his early years, was gained north of the Tweed. A feature in his *Seasons* (1728) are his descriptions of fishing. Thus in "Spring" we have the invitation to angle—

"Now when the first foul torrent of the brooks,
Swelled with the vernal rains, is ebb'd away ;
And, whitening, down their mossy-tinctur'd stream
Descends the billowy foam—now is the time,
While yet the dark-brown water aids the guile
To tempt the trout. The well dissembled fly ;
The rod, fine tapering, with elastic spring.
Snatch'd from the hoary stud the floating line,
And all thy slender wat'ry stores prepare."

He shrinks, however, from the worm more than Gay does—

"But let not on thy hook the tortur'd worm
Convulsive twist in agonising folds,
Which, by rapacious hunger, swallow'd deep,
Gives, as you tear it, from the bleeding breast
Of the weak, helpless, uncomplaining wretch,
Harsh pain and horror to the tender hand !"

This is where and how the poet would have you throw your fly—

"Just in the dubious point, where with the pool
Is mix'd the trembling stream, or where it boils
Around the stone, or from the hollow'd bank
Reverted plays in undulating flow—
There throw, nice judging, the delusive fly ;
And, as you lead it round in artful curve,
With eye attentive mark the springing game,

Straight as above the surface of the flood
They wanton rise, or, urged by hunger, leap
Then fix, with gentle twitch, the barbed hook ;
Some lightly tossing to the grassy bank,
And to the shelving shore slow dragging some,
With various hand proportion'd to their force."

And now let us compare his description of the death of a big trout, "the monarch of the brook," with the death of the salmon in the passage from Gay just above. After recommending that little fish, if caught, should be replaced in their native element, he proceeds :—

" But should you lure
From his dark haunt, beneath the tangled roots
Of pendant trees, the monarch of the brook,
Behoves you then to ply your finest art.
Long time he, following cautious, scans the fly,
And oft attempts to seize it ; but as oft
The dimpled water speaks his jealous fear.
At last, while haply o'er the shaded sun
Passes a cloud, he desperate takes the death
With sullen plunge : at once he darts along,
Deep struck, and runs out all the lengthen'd line,
Then seeks the farthest ooze, the sheltering weed,
The cavern'd bank, his old secure abode,
And flies aloft, and flounces round the pool,
Indignant of the guile. With yielding hand,
That feels him still, yet to his furious course
Gives way, you, now retiring, following now,
Across the stream, exhaust his idle rage,
Till, floating broad upon his breathless side
And to his fate abandon'd, to the shore
You gaily drag your unresisting prize."

Both passages may be compared with a similar one from Oppian, describing the death of a large anthia, in Chapter I.

But we must go back a little chronologically, and mention Whitney's *Genteel Recreation* (1700), the rhymes of which

have been tersely and painfully described as being "in the Bombastes Furioso style, and sufficiently ridiculous to be somewhat amusing." Moses Browne (another unpoetical name) published his *Piscatory Eclogues* in 1729. He is not to be confounded with the William Browne of the last century, whose productions Blakey in his *Angling Literature* confounds with those of Sannazarius, a translation of whose *Piscatory Eclogues* appeared in 1726. Browne's Eclogues are nine in number, and the author seems to have made Virgil and Theocritus his models for composition. They are very fair reading, especially when we remember that the author produced them in his twenty-third year.

The following lines will give an idea of his style :—

"When artful flies the angler would prepare,
The tack of all deserves his utmost skill ;
Nor verse nor prose can ever teach him well
What masters only know, and practice tell ;
Yet thus at large I venture to support,
Nature best follow'd best secures the sport.
Of flies—the kinds, their seasons, and their breed,
Their shapes, their hues, with nice observance heed ;
Which most the trout admires and where obtain'd,
Experience best will teach you, or some friend ;
For several kinds must every month supply,
So great's his passion for variety ;
Nay, if new species on the stream you find,
Try—you'll acknowledge fortune amply kind."

In 1733, Simon Ford, D.D., wrote a neat Latin poem *Piscatio*, which he inscribed to Archbishop Sheldon, the founder of the "Theatre" at Oxford, and a friend of Walton's, who mentions him in the "Fourth Day" as having "skill above others" in taking barbel. The *Piscatio* has been translated and adapted several times. Williamson, mentioned in Chapter V., was a bit of a poet, and some of

the "versification" of the principal subjects of each of the chapters in his *British Angler* runs off pretty well. This is how he versifies on silk and hair lines:—

"Choose well your Hair, and know the vig'rous Horse,
 Not only reigns in Beauty, but in Force ;
 Reject the Hair of Beasts, e'en newly dead,
 Where all the springs of Nature are decay'd.
 Be sure for single Links the fairest chuse—
 Such single Hairs will best supply your Use ;
 And of the rest your sev'ral Lines prepare,
 In all still less'ning ev'ry Link of Hair.
 If for the Fly, be long and slight your Line,
 The Fish is quick, and hates what is not fine ;
 If for the Deep, to stronger we advise,
 Tho' still the Finest takes the Finest prize.
 Before you twist your upper Links take care
 Wisely to match in Length and Strength your hair ;
 Hair best with Hair, and Silk with Silk agrees,
 But mix'd have great Inconveniencies."

In 1774 an M.D., John Armstrong, in his *Art of Preserving Health*, like Kirke White, hymns the Trent, and the "Healthiness of Angling":—

"But if the breathless chase o'er hill and dale
 Exceed your strength, a sport of less fatigue,
 Not less delightful, the prolific stream
 Affords. The crystal rivulet, that o'er
 A stony channel rolls its rapid maze,
 Swarms with the silver fry ; such through the bounds
 Of pastoral Stafford runs the brawling Trent ;
 Such Eden, sprung from Cumbrian mountains ; such
 The Esk, o'erhung with woods ; and such the stream
 On whose Arcadian banks I first drew air—
 Liddel, till now, except in Doric lays
 Tuned to her murmurs by her love-sick swains,
 Unknown in song, though not a purer stream
 Through meads more flowery, or more romantic groves,
 Rolls towards the Western main. Hail, sacred flood !
 May still thy hospitable swains be blessed
 In rural innocence, thy mountains still

Teem with the fleecy race, thy tuneful woods
 For ever flourish, and thy vales look gay
 With painted meadows and the golden grain ;
 Oft with thy blooming sons, when life was new,
 Sportive and petulant, and charmed with toys,
 In thy transparent eddies have I laved ;
 Oft traced with patient steps thy fairy banks,
 With the well-imitated fly to hook
 The eager trout, and with the slender line
 And yielding rod solicit to the shore
 The struggling panting prey, while vernal clouds
 And tepid gales obscured the ruffled pool,
 And from the deeps called forth the wanton swarms,
 Formed on the Samian school, or those of Ind.
 There are who think these pastimes scarce humane ;
 Yet in my mind (and not relentless I)
 His life is pure that wears no fouler stains."

Here we have the question of the "cruelty of fishing" raised, in reference to which it has been said that the chief pain which captured fish feel is that arising from the thought of the terrible lies which anglers will tell of their weights.

Following the example of clergymen of the Establishment, Dr. Thomas Scott, a dissenting minister of Ipswich, comes before us in 1775 as an angling author with his *Anglers* — "eight dialogues in verse" — very tolerable reading. A feature of angling literature is the large number of clergymen who have entered the lists both with prose and verse productions. As "fishers of men" it might be expected that they would occasionally handle the angling pen, and the rod too. To their ranks belong some of the best fishermen of past and present times. The fox-hunting parson is almost an extinct being, though a few of the persuasion still linger in the far west, and lament their famous leader, the late Jack Russell ; and the shooting parson is now under suspicion ; but a "little quiet

angling" is freely accorded on all sides to "the cloth." A very interesting book entitled *The Amusements of Clergymen*, was written in 1797, under the pseudonym of the "Rev. Josiah Framptom," by the Rev. William Gilpin, Prebendary of Salisbury, and author of *Forest Scenery*, which was reprinted a few years ago by Messrs. Sampson Low, Marston, & Co.

From *The Avon*, a poem ascribed to the Rev. J. Huckell, in 1789, we may take the following pretty lines as a specimen of his work :—

" See where serenely gay the Nymph invites
To more secure, tho' less sublime delights.
The studious angler see, with pleasing care,
The flowing line and quiv'ring rod prepare.
Delightful task ! When all the woodlands sing
The roscate beauties of inspiring spring.
Often may *patience*, wisdom's meek-eyed friend
To ev'ry fam'd recess his steps attend ;
And then, propitious to the vot'ry's skill,
Flow soft, ye waters, and, ye winds, be still ! "

Though it does not come within the category of English poetry, we will conclude our notice of the period through which we have been glancing with a few lines of translation from a poem of Delille, a charming French writer, at the close of the eighteenth century :—

" Beneath yon willow pale, whose foliage dank
Gives added freshness to the river's bank,
The fisher stands, and marks upon the tide
The trembling line along the current glide ;—
With mute attention, and with secret joy,
He views the bending rod and sinking buoy.
Which watery guest has braved the sudden fate
Fixed to the barb that lurks beneath the bait ?
The springing trout, or carp bedecked with gold ;
Or does the perch his purpled fins unfold ?
Or silver eel that winds through many a maze,
Or pike voracious on his kind that preys ? "

Somerville, who sounded his horn in *The Chace* at the beginning of the present century, and has somewhat irreverently been called "the poet of the pigskin," has not forgotten angling among his *Field Sports*; and Clifford, in his *Angler*, "a didactic poem," in 1804, has immortalised himself by putting on record his want of appreciation of J. D.'s *Secrets*. In 1809 appeared the Rev. J. Duncombe's translation in verse of the xv. Book of Vanière's *Prædium Rusticum* (1730), this book treating of fish. Daniel transferred it into his *Rural Sports* without any acknowledgment. In 1819, one Thomas Pike (rightly so called "the appropriator") Lathy distinguished himself by publishing *The Angler*, the great bulk of which was a mere transcription of Doctor Scott's book just mentioned, with "heads" and "tails" prefixed and suffixed to the different cantos. He palmed the book off on a confiding bookseller, who suffered in consequence. In the same year an officer of the Royal Navy, T. W. Charleton, left salt water for fresh, and produced a by no means unreadable poem, entitled *The Art of Fishing*, something in the style of John Dennys, but not nearly so good a production. In the collected poems of Professor Wilson (Christopher North), 1825, so many of which are devoted more or less to angling, we find *The Angler's Tent*, first published in 1812, a quotation from which will serve to show the author's style and spirit:—

" Yes ! dear to us that solitary trade,
 'Mid vernal peace in peacefulness pursued
 Through rocky glen, wild moor, and hanging wood,
 White-flowering meadow, and romantic glade !
 The sweetest visions of our boyish years
 Come to our spirits with a murmuring tone
 Of running waters ; and one stream appears,
 Remember'd all—tree, willow, bank, and stone ;

How glad were we, when, after sunny showers,
 Its voice came to us issuing from the school !
 How fled the vacant, solitary hours,
 By dancing rivulet, or silent pool !
 And still our souls retain in manhood's prime
 The love of joys our childish years that blest ;
 So now encircled by these hills sublime,
 We Anglers, wandering with a tranquil breast,
 Build in this happy vale a fairy bower of rest !
 Within that bower are strewn, in careless guise,
 Idle one day, the angler's simple gear ;
 Lines that, as fine as floating gossamer,
 Dropt softly on the stream the silken flies ;
 The limber rod that shook its trembling length,
 Almost as airy as the line it threw,
 Yet often bending in an arch of strength
 When the tired salmon rose at last to view,
 Now lightly leans across the rushy bed,
 On which at night we dream of sports by day ;
 And, empty now, beside it close is laid
 The goodly pannier framed of osiers gray ;
 And maple bowl in which we're wont to bring
 The limpid water from the morning wave,
 Or from some mossy and sequester'd spring
 To which dark rocks a grateful coolness gave,
 Such as might Hermit use in solitary cave !
 And ne'er did Hermit, with a purer breast,
 Amid the depths of sylvan silence pray,
 Than prayed we friends on that mild quiet day,
 By God and man beloved, the day of rest !"

Thomas Tod Stoddart, mentioned in the last chapter, was almost as good a poet as he was an angler ; and Professor Wilson, whom we have just quoted, considered his *Songs and Poems*, published in 1839, "among the best ever written." Here is one of them :—

" Where torrents foam
 While others roam
 Among the yielding heather ;
 Some river meek
 We'll forth and seek,
 And lay our lines together.

“Some sylvan stream,
 Where shade and gleam
 Are blended with each other,
 Below whose bank
 The lilies rank
 All humbler flowers ensmother.

“Where cushats coo
 And ringdoves woo
 The shining channel over,
 From leafy larch
 Or birchen arch—
 Their unmolested cover.

“There daily met,
 No dark regret
 Shall cloud our noon of pleasure ;
 We'll carry rule
 O'er stream and pool,
 And none to claim a measure.

“With tackless care
 On chosen hair,
 March fly and minnow tender,
 We shall invite
 The scaly wight
 To eye them and surrender.

“And when out-worn
 We'll seek some thorn
 With shadow old and ample—
 The natural ground,
 Moss laid around,
 An angler's resting temple !”

In *Remarks on Shooting, in Verse*, by W. Watt, in 1839, we have a poem of some length on “Trolling.” He seems to be one of that class of writers who have an idea that anything which rhymes is poetry ; and though his description of the tackle and the way of using it in this branch of angling is correct enough, the poem is hardly worth reading. The author writes very prosaic poetry ; but must be credited with originality of design in producing the

"Game Laws Versified," in forty-eight sections. Pulman's *Book of the Axe* (1841), and various poems on angling subsequently published, only claim passing mention.

The *Newcastle Fishers' Garlands* are a series of songs or poems chiefly in praise of the Coquet, and emanated from the Waltonian Club, established in Newcastle-on-Tyne in the year 1821-22. The custom seems to have been to publish a *Garland* annually, the first of which appeared in 1821 in form of a single-sheet broadside. It commences—

"Auld nature now revivèd seems,"

and was the joint production of Robert Roxby and Thomas Doubleday, who were also the authors of most of the single *Garlands* to the year 1832, when the series terminated. They were published in a collected form in the year 1836, with Boaz's *Angler's Progress*, a childish poem written in 1789, prefixed to them as the *Garland* for 1820. In 1742 an attempt was made to revive the series, but it failed after two or three years. However, in the year just named, the original publishers of the *Garlands* brought out *A Collection of Right Merrie Garlands for North-Country Anglers*, adding to the original a miscellaneous collection of songs, Doubleday again being a contributor. The best of the Roxby and Doubleday *Garlands* were republished in the *Coquetdale Fishing Songs* in 1852; and in 1864 Mr. Joseph Crawhall again reproduced the *Collection of Right Merrie Garlands, &c.*, with songs and poems added mainly by himself and Doubleday, T. Westwood being also a contributor, and styled them by the old title of the *Newcastle Fishers' Garlands*, assigning one, and sometimes two, to each year to 1864 inclusive. Thus we have what the Devonshire folk would call "a mixed medley;" and the compositions, it

must be confessed, are of very unequal merit, though many of them strike sympathetic chords. They are about fifty in number, and here is one of Doubleday's, entitled "The Fisher's Call" (1828), taken almost at haphazard :—

" The thorn is in the bud,
 The palm is in the bloom,
 The primrose, in the shade,
 Unfolds her dewy bosom ;
 Sweet *Coquet's* purling clear,
 And summer music making ;
 The trout has left his lair,
 Then waken, fishers, waken !

" The lavrock's in the sky,
 And on the heath the plover,
 The bee upon the thyme,
 The swallow skimming over ;
 The farmer walks the field,
 The seed he's casting steady,
 The breeze is blowing west,
 Be ready, fishers, ready !

" The violet's in her prime,
 And April is the weather ;
 The partridge on the wing,
 The muircock in the heather ;
 The sun's upon the pool
 His morning radiance wasting,
 It's glittering like the gold,
 Oh, hasten, fishers, hasten !

" The *Felton* lads are up,
 They're looking to their tackle ;
 The sawmon's in the stream,
 And killing is the hackle.
 If there's a feat to do,
 'Tis *Weldon* boys should do it ;
 Then up and rig your gads,
 And to it, fishers, to it !"

Here is another, by W. A. Chatto, which originally appeared in his book on *Fly-Fishing in Northumber-*

land, &c., in 1834, under the title of "The Angler's Invitation :"—

" The wild bull his covert in Chillingham wood
Has left, and now browses the daisy-strew'd plain ;
The May-fly and swallow are skimming the flood,
And sweet in the hedge blooms the hawthorn again ;
The young lambs are skipping on *Cheviot's* broad mountain,
The heather springs green upon *Whitsun-bank* side ;
The streams are as clear as the lime-stone rock fountain,
And sweet is the palm-blossom's scent where they glide.

" Oh, leave for awhile the dull smoke of the city ;
Sons of gain, quit your desks, and your ledgers lay by,
Seek health in the fields while each bird sings its ditty,
And breathe the pure air underneath the broad sky ;
Sons of pleasure, come view the sweet primroses springing,
Leave the scene where the light figurantè whirls round ;
Come, list to the lark in the blue ether singing,
Come, see how the deer in the green forest bound.

The glad trout is roaming in every clear stream,
And the grilse and the salmon now drink the May flood ;
Then, anglers, be up with the sun's early beam,
Let your flies be in trim and your tackle be good ;
In *Till* there's good store of fat trouts to be won,—
Let your skill load your creels as you wander along,—
And at night, as you tell of the feats you have done,
Cheer your talk with a cup of good wine and a song."

While among the angling poets of the north, who seem to have been among the most enthusiastic of their tribe, we may here mention, though a little out of chronological order, the *Chaplets from Coquet-side*, by Joseph Crawhall, published in 1873. The following quaintly dainty little bit would almost make worm-fishing allowable in the crystal streams flowing from Parnassus itself : —

" The flee's been sung in mony a strain,
The mennum owre an' owre again

Has been the poet's theme ;
 Gentles, and pastes, and viler roe
 Hae had their praises sung enow
 In drumlie verse and stream,
 But let us sing *the worm* in Junc,
 Auld Coquet crystal clear ;
 All leafy Nature's now in tune,
 Now doth true skill appear.
 Sae moyley an' coily
 Steal on the gleg-e'ed trout ;
 He sees ye, an' flees ye—
 Gif no—ye'll pick him out.

“ Just as the early, tuneful lark,
 Dame Nature's vocal chapel-clerk,
 Carols his hymn of praise,
 Just as the dews frae flowers distil,
 And air recovers frae nights chill,
 Thro' Phœbus' slantin' rays ;
 Wi' weel-graithed gear up stream then hie,
 Unerring cast the lure ;
 The barely covered *spankers* lie
 Unwatchfully secure.
 Then lungin' and plungin'
 You feel the finny prize,
 Now gantin' an' pantin'
 Stretched on his side he dies.

“ Straight as a sapling fir your wand,
 Mid-teens o' feet, and light to hand,
 With hook of ample size,
 Inserted just below the head
 Of worm, well scoured and purplish red,
 Like arrow sourceward flies,
 Swift with the current see it wear,
 Then trembling, mid-stream stay,
 That instant strike—my life, *he's there* !
 At leisure creelward play.
 Then stay there an' play there,
 Enjoy thy latest cast,
 For the worm aye, in turn aye,
 Will conquer a' at last.”

Blakey published his *Angler's Song Book* in 1855, containing nearly two hundred and fifty songs and poems of various degrees of merit, and some of no merit at all, ranging from John Dennys down to Wordsworth. The collection, as a whole, is not one of which anglers can feel very proud.

The *Songs of the Edinburgh Club* (1851), a new and enlarged edition of which was published in 1879, is the last collection we shall mention. This club was founded in 1847, and the volume was "privately printed for members," whose angling headquarters is "The Nest," on a famous stretch of the Tweed rented by the club. Our quotations from angling poets have already extended to so great a length that we must forbear to quote but a few lines from this elegant volume, which is full of suggestiveness of love of nature, love of angling, and love of the brotherhood of anglers, while at the same time it is to be prized for the faultless typography and exquisite engravings. This is the concluding "L'Envoi"—

" 'Tis time to part ; the fleeting hours
Too soon have sped their course along ;
Yet surely we have tipped their wings
With golden mirth and sil'ry song.
Old Time, upon his labouring course,
Might pause to gaze on scenes so bright
And hours like these. But, no, he's past,
And we must part—Good night ! Good night !

" We'll meet again ; you know the spot,
Where rolls the river broad and fair,
Where peeps the modest violet,
And hawthorn blossoms scent the air.
Again with song and mirth we'll crown
Our long, long days of calm delight.
But now, alas ! 'tis time to part,
To each and all—Good night ! Good night ! "

The Honble. and Rev. Robert Liddell is another clergyman among the poets of the Angle. He published the first canto of *The Lay of the Last Angler*, as a "tribute to the Tweed at Melrose," at the end of the season of 1867. The third canto appeared in 1874; but they were all printed "for private circulation only." They afford a rich poetical treat to any angler who is fortunate enough to get hold of a copy.

Numerous angling songs and poems by different modern writers have appeared during the last few years in the pages of magazines and newspapers more or less devoted to national pastimes, both here and in America. Many of them are of great beauty, and will perhaps appear in some more permanent form. We must restrain our desire to quote them, contenting ourselves with the following lines on a humble brook, by Carl Waring, published in the *American Forest and Stream* :—

"You see it first near the dusty road,
Where the farmer stops with his heavy load
At the foot of a weary hill ;
There the mossy trough it overflows,
Then away with a leap and a laugh it goes
At its own sweet wandering will.

"It flows through an orchard gnarl'd and old,
Where in the spring the dainty buds unfold
Their petals pink and white ;
The apple blossoms so sweet and pure,
The streamlet's smiles and songs allure,
To float off on the ripples bright.

"It winds through the meadow scarcely seen,
For o'er it the flowers and grasses lean
To salute its smiling face ;
And thus, half hidden, it ripples along,
The whole way singing its summer song,
Making glad each arid place.

“ Just there, where the water dark and cool
 Lingers a moment in yonder pool,
 The dainty trout are at play ;
 And now and then one leaps in sight,
 With sides aglow in the golden light
 Of the long sweet summer day.

“ Oh, back to their shelves those books consign,
 And look to your rod and reel and line,
 Make fast the feather'd hook !
 Then away from the town, with its hum of life,
 Where the air with worry and work is rife,
 To the charms of the meadow brook ! ”

As regards the poetical literature of angling which we have reviewed, it would be mere affectation to say that we should be satisfied with it as a whole. It is true that there is considerable interest in it from a bibliographical point of view, and that the contributions of several writers are good examples of true poetic feeling and diction ; but at the same time there is a plethora of what is mere doggerel, stiltedness, and affectation. Anglers themselves, however, who form no inconsiderable portion of the community, may be congratulated on the high testimony the poets have borne to their favourite recreation ; and it is not likely that a *vates sacer* will ever be wanting to their ranks. As time passes on, and prose works on angling multiply, in like manner we may expect the stream of poetic literature to flow on, as the contemplative man's recreation is in its surroundings and associations conducive to the development of poetic temperament and feeling.

In this and the two previous chapters the majority of—and, indeed, almost all—the authors mentioned were themselves anglers, as might naturally be expected. By way of a note, we may here give the names of a few more or less eminent literary men who, though not authors on angling, have pursued the gentle craft. For instance,

Dryden, Bacon, George Herbert, Sir Isaac Newton, Pepys, Dean Swift, Hollingshed, Sheridan, Sir Aubrey Carlisle, Archdeacon Paley, Sir Walter Scott, Hogg the Ettrick Shepherd, and the first Lord Lytton, who in more than one passage in his "Eugene Aram" pictures fly-fishing. Among more modern *literati* is Mr. Matthew Arnold; and many others who handle the "bending reed" as well as the pen most masterfully.

We will conclude this chapter with the soft cadence of the final stanza of J. D., the "Laureate of the Angling Craft":—

" And now we are ariued at the last,
 In wished harbour where we mean to rest ;
 And make an end of this our journey past.
 Here in the quiet roade I think it best
 We strike our sails and stedfast Anchor cast,
 For now the Sunne low setteth in the West."

CHAPTER VIII.

THE PERIODICAL LITERATURE OF SEA AND RIVER FISHING
 —NEWSPAPERS—REVIEWS—MAGAZINES—BOOKS ON
 SEA FISHING, ICHTHYOLOGY, AND PISCICULTURE—
 THE LITERARY “OUTCOME” OF THE FISHERIES
 EXHIBITION.

PERHAPS the subject taken in hand in this little volume might have been considered fairly concluded in the last chapter, as the survey in the preceding papers has covered, though necessarily in a circumscribed and imperfect manner, the whole field of Fishing Literature from the earliest times to the present. Still it may not be out of place to add a few words in reference to the current literature of fishing; and a list of some of the chief works which deal with subjects more or less allied to that immediately in hand.

A weekly newspaper, specially devoted to Fish and Fishing is *The Fishing Gazette*, most ably edited by Mr. R. B. Marston, who is well known as a learned and skilful angler, and for the interest he takes in pisciculture, especially in reference to “coarse” fish. The *Angler's Journal* is another, edited by Captain Alfred, of Moorgate Street. The *Field* has, from its first starting, devoted much space to angling, of which department Mr. Francis Francis has been editor for many years. A large portion of his Angling, and kindred works, has first appeared in its pages. *Land and Water*, to which the late Mr. Frank

Buckland was a voluminous contributor, follows in the same line; and Mr. Henry Ffennell is now its angling editor. It has recently appeared in a new and improved form, which has been much appreciated. *Ashore or Afloat*, a recently launched weekly, and admirably done, makes fish and fishing a special feature. The success in this department has been secured by the appointment of Mr. J. T. Carrington, the naturalist of the Aquarium, as the editor of "Sea Fishing," and Mr. J. P. Wheeldon of "Freshwater Fishing." The *Fish Trades Gazette*, a new weekly journal, rather inclined to take a one-sided view of the fish trade, always contains a good supply of interesting matter in connection with sea fishing. Of a very similar character is the American paper called the *Sea World and Packer's Journal*, published at Baltimore. The *American Angler* (New York) is a Transatlantic paper of interest to anglers. But the best of the class is *Forest and Stream* (New York), of which Messrs. Sampson Low, Marston, & Co. are the representatives in London. The *Field* is another excellent American paper of the same type. It is published at Chicago. Among journals here which deal with miscellaneous sports and pastimes, and include articles on angling, may be mentioned the *Sporting Life*, the *Sportsman*, *Bell's Life*, and the *Sporting and Dramatic News*, and the *Irish Sport*. Other weekly papers, such as the *Graphic*, constantly have articles on angling in their pages. Indeed such is the popularity of angling at the present time, that even the London daily papers frequently publish articles on the subject. Among provincial newspapers the *Norwich Argus*, a high-class Conservative journal, is conspicuous for the space it gives to contributions on sea and river fishing. It is from the office of this paper that an admirable little

Guide to the Broads and Rivers of Norfolk is issued ; and also the annual *East Anglian Handbook*, in which articles on fish and fishing have for the last quarter of a century found a place. A selection of these, bound in one volume, was exhibited by Mr. P. Soman, the proprietor of the *Argus*, at the Fisheries Exhibition.

The "Magazines" of the period by no means neglect angling. *Blackwood* did no little to establish its reputation years ago by its angling articles from the pens of Professor Wilson, and other eminent literary anglers. *Fraser*, also, has long made angling articles a feature in its pages ; and even the more sober "Quarterlies" minister to the prevailing taste. The "Monthlies" of many kinds also follow suit, such as the *Cornhill*, *Temple Bar*, &c. ; while the evergreen *Baily*, and the promising young *Squire* (the latter under the able conductorship of Mr. Morgan Evans), minister regularly and pleasantly to piscatorial wants. The *Sporting Mirror* angles for readers. Scribner's Monthly, now *The Century* (New York), sends us an abundant supply of admirable angling articles from the other side of the "herring-pond."

What may be termed "Guide-Books" have their place, though a humble one, in angling literature ; and very useful publications they are. Among them may be mentioned the *Angler's Diary*, issued annually from the *Field Office*, which gives in alphabetical order a list of all the fishing waters in the United Kingdom, with nearest railway stations, and a variety of information in reference to "close" seasons, licences, &c. Mr. Greville Fennell's *The Rail and the Rod* has already been mentioned in Chapter VI., as has also Mr. Wheeldon's *Angling Resorts near London*. Both books contain most useful "guidal" information, as well as being worthy of being ranked as books on angling from a

literary point of view. The same remark applies to Mr. Little's *Angler's Complete Guide and Companion*. For Scotch anglers, or others going north, Mr. Watson Lyall's *Sportsman's and Tourist's Guide*, which is published monthly during the spring and summer, is a valuable reference book, and contains much useful information as to letting price of Scotch fishings, &c. Of a somewhat similar character, but in "book" form, is *The Highland Sportsman*, published annually by Mr. Hall at 43, Old Bond Street. All who wish to acquaint themselves with Scotland in its sporting aspect should have this volume. Just before going to press with these notes, another Scotch sporting guide has been announced as shortly to appear, under the title of *Ross's Sportsman's Friend* (68, West Regent Street, Glasgow).

Angling Societies are also contributing to angling literature by the publication in volumes of the Papers read at their meetings. The two series of *Anglers' Evenings* (Heywood and Son, Manchester), being Papers read before the Manchester Angling Association, are admirable examples of such publications. Very recently that young but flourishing angling association, "The Gresham," has issued a pleasant little volume containing some of the Papers read at its meetings.

Our colonies and the United States are fast forming a piscatory literature of their own. In the latter the pastime of fishing is becoming more and more popular every year. Among them may be mentioned the *American Angler's Guide*, the first edition of which was published at New York in 1845, and the last in 1876. It covers all kinds of fishing in the United States, and contains much that may be read with profit by anglers here. Bethune's valuable edition of the *Complete Angler* has been referred

to in Chapter IV. Other American angling books are Henshall's *Black Bass Fishing*; Hallock's *Fishing Tourist*, and his *American Sportsman's Gazetteer*; and Frank Forester's *Fishing with Hook and Line*. The last files of papers from America announce the appearance of *Fish: their Habits and Haunts, and the Methods of Catching them*, by the late Lorenzo Pronty.

For the purpose of reference, a list of some chief works on SEA-FISHING, ICHTHYOLOGY, and PISCICULTURE are here added.

Under those on SEA-FISHING to be specially mentioned is Mr. E. W. H. Holdsworth's *Deep-sea Fishing and Fishing Boats* (Stanford, 1874), from which may be fully learned all that an ordinary reader would wish to know about the fishing industry round our coasts. Bertram's *Harvest of the Sea* (Murray, 1865), *The Great Fishcries of the World described* (Nelson, 1878), Caux's *The Herring and the Herring Fishery* (Hamilton, Adams, and Co., 1881), and *The Fisheries of the World*, now in course of publication by Messrs. Cassell and Co.—are all full of information on the subject. A little pamphlet, entitled *Sea Fisheries; or, Christmas among the Fishermen of the North Sea*, which has been on sale at the Fisheries Exhibition, may be read with interest. Many books deal mainly with sea fishing as a "sport"—for instance (without giving them in chronological order), Wilcock's *Sea Fisherman* (Longman and Co.), L. Young's *Sea Fishing as a Sport* (1872), "Wildfowler's" *Shooting and Fishing Trips* (Longman & Co.), Lord's *Sea Fish, and how to catch them* (Bradbury and Evans, 1862), Brookes's *Art of Angling, Rock and Sea Fishing*, dating as far back as 1740. There is valuable information, also of a general kind, in Hearder's *Degeneration of our Sea*

Fisheries (Plymouth, 1870), and in the little Trade Catalogues of Hearder and Son, and of C. & R. Brooks, both tackle makers at Plymouth, who exhibited and won distinction at the Fisheries Exhibition. But as valuable a volume as any connected with our sea fisheries is the Selection of Prize Essays recently published by the Committee of the Edinburgh Fisheries Exhibition of last year. Almost every subject connected with the fishing industry is therein most fully treated on. The volume is entitled *Essays on Fish and Fisheries*, and is published by Blackwood and Sons, Edinburgh.

Mr. Andrew Young's *Natural History and Habits of the Salmon* (Longman and Co., 1874), *The Autobiography of Salmo Salar, Esq.*, already mentioned in Chapter VI., and Mr. Archibald Young's *Salmon Fisheries* (attached to Mr. Holdsworth's book on sea fishing), are among the works to be referred to in connection with the fish that hovers between salt and fresh water, and has both a sporting and commercial importance. Mr. T. Brady's *Reports*, and other publications in reference to Irish fisheries, are also very valuable. Olsen's pictorial *Atlas of the North Sea*, &c. (O. T. Olsen, Grimsby), should be possessed by all who wish to study our sea fisheries. The last work we will mention is *The British Fisheries Directory*, recently published by Sampson Low, Marston, and Co. It may truly be called a child of the Fisheries Exhibition, and it is to be hoped that it will be established as an annual. Of its usefulness to both amateur and professional fishermen there can be no doubt, as it is a book of statistics and general information in connection with every department of the fishing industry of the United Kingdom. The idea was an excellent one, and it has been excellently carried out. For a variety of other works, bearing more or less directly on

sea fishing, reference may be made to that portion of the *Bibliotheca Piscatoria* devoted to "Fisheries" publications.

Legal works of value connected with our fisheries which will be found most useful are Oke's *Handbook of Game and Fishery Laws* (Butterworth's, 1878), edited by J. W. W. Bund; Mr. Bund's own book on *The Law relating to the Salmon Fisheries, &c.*; Mr. Baker's *Laws relating to Salmon Fisheries, &c.* (though the last edition was in 1868), and Mr. Archibald Young's books above-mentioned. For an exhaustive list of *Acts of Parliament* relating to our fisheries, from the time of Edward I. (1270), down to the present, and *Parliamentary Papers*, reference can be made to the *Bibliotheca Piscatoria*, in which the enumeration of both together fill up no less than fifty pages.

The mention of works on ICHTHYOLOGY at once suggests the names of the great French naturalists Buffon and Cuvier. The *Animal Kingdom* of the latter, and *Natural History* of the former, must ever remain standard works of their kind, notwithstanding fresh discoveries in zoology. Among our own country the name of Yarrell stands out conspicuously, his *History of British Fishes* being a master work (Van Voorst), and his *Growth of the Salmon in Fresh Water* another. Mr. Van Voorst also publishes a most interesting book, though not in the class we are now mentioning, entitled *Heraldry of Fish*, by Thomas Moule. Couch's *History of the Fishes of the British Isles* (Bell & Co.) is too well known to need more than mention here. His *Treatise on the Pilchard* is also well worth study, both as a work on ichthyology and as bearing on the pilchard fisheries of Cornwall. Another standard work is the *Introduction to the Study of Fishes*, by Dr. C. L. B. Günther, of the British Museum (A. & C. Black, Edinburgh, 1880). *British Fresh-Water Fishes*, by the Rev. W. Houghton,

is published by W. Mackenzie & Co., of Ludgate Hill, E.C., and Edinburgh and Dublin (1880), and it is difficult to imagine a work of the kind more splendidly illustrated, while the letterpress is all that can be desired. The two grand volumes make a magnificent specimen of a *livre de luxe*. The chapters on the "Salmonidæ" are of special interest and beauty. The *Fishes of Great Britain and Ireland*, "including their economic uses and various modes of capture, &c.," is another of the great books of the age and "for all time." Dr. Francis Day, its author, is also well known for his work on the *Fishes of India*, and other productions. He has won the highest distinctions in connection with the Indian Section at the Fisheries Exhibition, and other honours. Cassell's *Natural History*, a grand work, which has long been in course of publication, under the editorship of Dr. Duncan, is another most valuable book of reference. Among less pretentious volumes may be mentioned F. Buckland's *History of British Fishes, &c.* (S.P.C.K.), and his *Logbook of a Fisherman and Zoologist*; Wood's *Natural History; Fishes*, in Jardine's "Naturalist's Library"; Brown's *Natural History of the Salmon* (1862); Pennell's *Angler-Naturalist*; *The Autobiography of Salmo Salar, Esq.*, already referred to; Badham's *Prose Halieutics*; the various works by H. P. Gosse; Rennie's *Alphabet of Scientific Angling*, though published as long ago as 1836, and consequently somewhat antiquated in its curious ichthyological gossip; and *Reports on the Natural History of Salmonoids* (Blackwood, 1867). The various writings of Professors Darwin, Tyndall, Owen, and Huxley, contain a variety of ichthyological information, and the monograph on the *Crayfish*, by the last named, is a veritable marvel of exhaustive treatment. The last work we shall mention here, but by no means "the

least" in the library of ichthyology, is Scribner & Sons' (New York) *Game Fishes of the United States*, containing a series of most magnificent paintings of fishes and scenery, with the text by Professor Browne Goode, of the United States Museum. This is another of the *livres de luxe*, but unfortunately beyond the means of slender purses. A large number of the books on angling already referred to in Chapters IV., V., and VI., contain ichthyological matter of more or less interest.

Works on PISCICULTURE are numerous, and many date back to the Middle Ages, and even "classic" times. Some have already been referred to in connection with what we have called the "composite" books on angling; and to them may be added the Treatises of Boccius, published by Van Voorst in 1841 and 1848; and several other translations of foreign authors. Our own older writers dilated a good deal on fish-ponds, a subject to which before long greater attention will probably be given in this country. Roger North published his *Discourse on Fish and Fish-ponds* in 1713, and it may still be studied with profit, a remark which applies to W. Marshall's work on *Management of Landed Estates* (Longman & Co., 1806), in which the 9th section treats on "Improvement of Waters." Other comparatively old works, such as Lebault's *Maison Rustique* (mentioned by I. Walton in "Fifth Day"), translated into English in 1600; Ellis's *Modern Husbandman* (1750); Mordant's *Complete Steward* (1761), in dictionary form; Mortimer's *Whole Art of Husbandry* (1707); Jacob's *Country Gentleman's Vade-mecum* (1717); and Hale's *Complete Body of Husbandry* (1758), all contain "Fish-pondian" information, a great deal of which is applicable to "fish-farming" at the present time. Among works on angling, several contain piscicultural disquisitions, and especially Bowlker's *Art of Angling*, referred to in Chapter V. Among more recent

works which may be consulted are F. Buckland's *Fish and Fish Hatching* (Tinsley Brothers, 1863); Capel's *Trout Culture* (Hardwicke & Bogue, 1877); Sir Samuel Wilson's *Trout at the Antipodes* (Stanford, 1879); Ashworth's remarks on the artificial propagation of salmon at Stormontfield (1875), and *Report of a Committee* on the experiments there (1875), and Brown's *Natural History of the Salmon*, also in connection with the same establishment (Murray, Glasgow, 1862); Francis Francis's *Fish Culture* (Routledge, 1865), and his *Practical Management of Fisheries* (Field office, 1883); Hoare's *Treatise on Fish-ponds* (Wyman and Sons, 1870); and Humphrey's *River Gardens* (Sampson Low & Co., 1857). The United States of America, have been prolific in piscicultural publications. Seth Green published his *Trout Culture* in 1870, and L. Stone his *Domesticated Trout* in 1873—a valuable work; and Norris his *American Fish Culture* in 1868 (Sampson Low & Co.). The Reports of the *United States Commission of Fish and Fisheries* date from 1871, and are all most instructive; as are *The Transactions of the American Fish Cultural Association* (established in 1871), to which Professor G. Brown Goode is a prominent contributor; and from Canada we had last year the interesting and valuable *Report of S. Wilmot, Esq., on Fish Breeding Operations, &c.*, in the Dominion. The annual *Fisheries Statements* published by the Canadian Government are well got up and worth consulting.

Our concluding note will be in reference to the published literary products of the Fisheries Exhibition itself. Of these the HANDBOOKS are naturally the chief; and for convenience of reference we give the Series entire:—

The Fishery Laws. By Frederick Pollock, Barrister-at-Law, M.A. (Oxon.), Hon. LL.D. Edin.; Corpus Christi Professor of Jurisprudence in the University of Oxford.

- Zoology and Food Fishes.* By George B. Howes, Demonstrator of Biology, Normal School of Science, and Royal School of Mines, South Kensington.
- British Marine and Freshwater Fishes.* (Illustrated.) By W. Saville Kent, F.L.S., F.Z.S., Author of Official Guide-books to the Brighton, Manchester, and Westminster Aquaria.
- Apparatus for Fishing.* By E. W. H. Holdsworth, F.L.S., F.Z.S., Special Commissioner for Juries, International Fisheries Exhibition; Author of "Deep Sea Fisheries and Fishing Boats," "British Industries—Sea Fisheries," &c.
- The British Fish Trade.* By His Excellency Spencer Walpole, Lieut.-Governor of the Isle of Man.
- The Unappreciated Fisher Folk.* By James G. Bertram, Author of "The Harvest of the Sea."
- The Salmon Fisheries.* (Illustrated.) By C. E. Fryer, Assistant Inspector of Salmon Fisheries, Home Office.
- Sea Monsters Unmasked.* (Illustrated.) By Henry Lee, F.L.S.
- The Angling Clubs and Preservation Societies of London and the Provinces.* By J. P. Wheeldon, late Angling Editor of "Bell's Life."
- Indian Fish and Fishing.* (Illustrated.) By Francis Day, F.L.S., Commissioner for India to International Fisheries Exhibition.
- A Popular History of Fisheries and Fishermen of all Countries, from the Earliest Times.* By W. M. Adams, B.A., formerly Fellow of New College, Oxford.
- Fish Culture.* (Illustrated.) By Francis Day, F.L.S., Commissioner for India to International Fisheries Exhibition.
- Fish as Diet.* By W. Stephen Mitchell, M.A. (Cantab.)
- Angling in Great Britain.* By William Senior ("Red Spinner").
- Edible Crustacea.* By W. Saville Kent, F.L.S., F.Z.S., Author of Official Guide-books to the Brighton, Manchester, and Westminster Aquaria.
- The Literature of Sea and River Fishing.* By John J. Manley, M.A. (Oxon.), Author of "Notes on Fish and Fishing," &c., &c.
- Sea Fables Disclosed.* By Henry Lee, F.L.S.
- Fishes of Fancy: their place in Fable, Fairy Tale, Myth, and Poetry.* By Phil Robinson.

Practical Lessons in the Gentle Craft. By J. P. Wheeldon.

The series of PAPERS read at the CONFERENCES are as follows :—

Inaugural Meeting: Address. By Professor Huxley, P.R.S.
H.R.H. the Prince of Wales (President of the Commission)
in the Chair.

Notes on the Sea Fisheries and Fishing Population of the United Kingdom. By H.R.H. the Duke of Edinburgh, K.G.

The Fishery Industries of the United States. By Professor Brown Goode, M.A.

Oyster Culture and Oyster Fisheries in the Netherlands. By Professor Hubrecht.

Principles of Fishery Legislation. By Right Hon. G. Shaw-Lefevre, M.P.

On the Culture of Salmonidæ and the Acclimatisation of Fish.
By Sir James Ramsay Gibson Maitland, Bart.

Fish Diseases. By Professor Huxley, P.R.S.

The Economic Condition of Fishermen. By Professor Leone Levi.

The Fisheries of Canada. By L. Z. Joncas.

Preservation of Fish Life in Rivers by the Exclusion of Town Sewage. By the Hon. W. F. B. Massey-Mainwaring.

Molluscs, Mussels, Whelks, &c., used for Food or Bait. By Charles Harding.

Coarse Fish Culture. By R. B. Marston.

On the Food of Fishes. By Dr. F. Day.

The Herring Fisheries of Scotland. By R. W. Duff, M.P.

Line Fishing. By C. M. Mundahl.

Fish Transport and Fish Markets. By His Excellency Spencer Walpole.

Forest Protection and Tree Culture on Water Frontages. By D. Howitz, Esq.

Seal Fisheries. By Captain Temple.

Fish as Food. By Sir Henry Thompson.

Storm Warnings. By R. H. Scott.

- On the Destruction of Fish and other Aquatic Animals by Internal Parasites.* By Professor Cobbold, F.R.S., F.L.S.
- Scientific Results of the Exhibition.* By Professor E. Ray Lankester.
- A National Fishery Society for Great Britain.* By C. E. Fryer.
- Crustaceans.* By T. Cornish.
- Salmon and Salmon Fisheries.* By David Milne Home, F.R.S.E.
- Pilchard and Mackerel Fisheries.* By T. Cornish.
- Artificial Culture of Lobsters.* By W. Saville Kent.
- The Basis for Legislation on Fishery Questions.* By Lieut.-Col. F. G. Solá.
- Trawling.* By Alfred Ansell.
- On Facilities for the Improved Capture and Economic Transmission of Sea Fisheries, and how these Matters affect Irish Fisheries.* By R. F. Walsh, of Kinsale.
- The Fisheries of Ireland.* By J. C. Bloomfield.
- The Fisheries of Other Countries.* By Commissioners for Sweden, Norway, Spain, &c., who took part in the Conference.
- The Pollution of Rivers.* By Mr. V. B. Barrington Kennett, M.A.
- The Fisheries of Japan.* By Narinori Okoshi.
- The West African Fisheries, with particular reference to the Gold Coast Colony.* By Captain Moloney, C.M.G.
- Fish Preservation and Refrigeration.* By Mr. J. K. Kilbourn.
- Practical Fishermen's Congress* (presided over by Mr. Edward Birkbeck, M.P.), containing: (a) Destruction of Immature Fish. (b) Harbour Accommodation. (c) Better Means for Prevention of Loss of Life at Sea. (d) Railway Rates.
- The Fisheries of Newfoundland.* By Sir Ambrose Shea, K.C.M.G.

The above Handbooks and Papers treat of almost every subject which can be included under the title of "Fish and Fishing"; and cover much of the ground occupied in many of the books passed in review in the foregoing pages. In addition to them there will be published the *Reports of the Jurors*; and a selection of the *Prize Essays* and others, on a variety of piscatory subjects.

The *Catalogue*, the fourth edition of which occupies close on five hundred closely-printed pages, and produced under the editorship of Mr. A. J. R. Trendell, the Literary Superintendent and Commissioner for Conferences, may in a certain sense be considered as a valuable contribution to the literature of Sea and River Fishing, and almost a "Bibliotheca Piscatoria" in itself.

The "Handbooks" and "Papers" will be sent to every library in the world; and, owing to their large general circulation, they are likely to stimulate still further interest in both sea and river fishing and their surroundings. If only for this literary "outcome," the great International Fisheries Exhibition will not have been held in vain.

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